

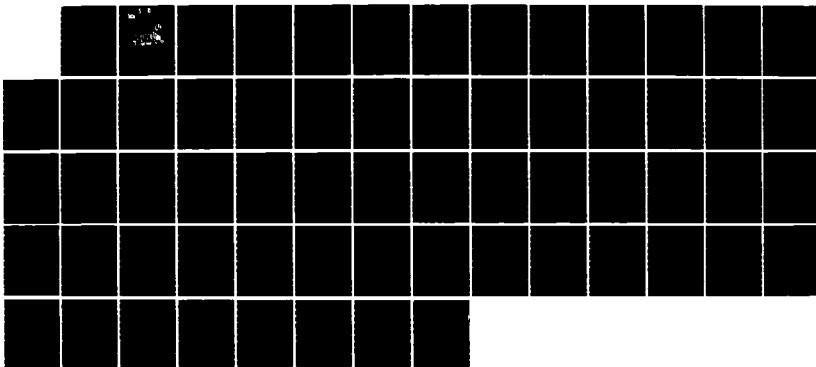
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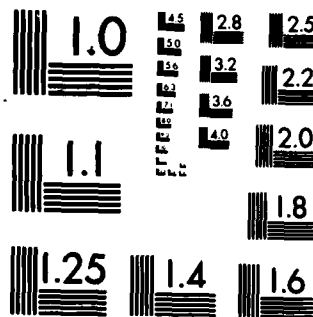
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OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX AUG 86

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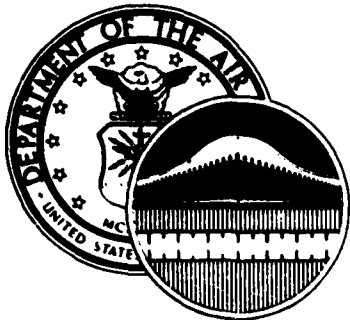
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UNITED STATES AIR FORCE

# OCCUPATIONAL SURVEY REPORT



GROUND RADIO COMMUNICATIONS

AFSC 304X4

AFPT 90-304-492

AUGUST 1986

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OCCUPATIONAL ANALYSIS PROGRAM  
USAF OCCUPATIONAL MEASUREMENT CENTER  
AIR TRAINING COMMAND  
RANDOLPH AFB, TEXAS 78150-5000

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DISTRIBUTION FOR  
AFSC 304X4 OSR AND SUPPORTING DOCUMENTS

	<u>OSR</u>	<u>ANL EXT</u>	<u>TNG EXT</u>	<u>JOB INV</u>
AFHRL/MODS	2	1m	1m	
AFHRL/ID	1	1m	1m/1h	
AFMPC/DPMRTC	2			
ARMY OCCUPATIONAL SURVEY BRANCH	1			
CCAF/AYX	1			
DEFENSE TECHNICAL INFORMATION CENTER	2			
HQ AFCC/MPXT	3		3	
HQ AFCC/TTGT	1		1	
HQ AFISC/DAP	2			
HQ ATC/DPAE	1		1	
HQ ATC/TTQE	2		1	
HQ ATC/TTY	2		1	
HQ ESC/TTGT	1		1	
HQ ESC/DPTE	2		2	
HQ TAC/DPATJ	3		3	
HQ TAC/TTGT	1		1	
HQ USAF/LEYEK	1		1	
HQ USAF/MPPT	1		1	
HQ USAFE/DPAT	3		3	
HQ USAFE/TTGT	1		1	
HQ USMC (CODE TPI)	1			
NODAC	1			
3300 TCHTW/TTGX (KEESLER AFB MS)	3	1h	3	3
3300 TCHTW/TTS (KEESLER AFB MS)	1		1	
DET 3, USAFOMC (KEESLER AFB MS)	1	1	1	1
USAFOMC/OMYXL	10	2m	5	10
1872 SCHS/TU	2	1m	1m/2h	
3507 ACS/DPKI	1			

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## PREFACE

→ This report presents the results of a detailed Air Force Occupational Survey of the Ground Radio Communications career ladder (AFS 304X4). Authority for conducting occupational surveys is contained in AFR 35-2. Computer printouts from which this report was produced are available for use by operating and training officials. ←

The survey instrument was developed by First Lieutenant William Carney, Inventory Development Specialist. First Lieutenants H. A. Goodman, Dana H. Lindsley, and Mr James B. Keeth, analyzed the data and wrote the final report. Administrative support was supplied by Ms Anita R. Carter. SSgt Joseph E. Seitz and Sergeant Raymond Tackett provided computer programming support for the project. This report has been reviewed and approved by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center, Randolph AFB, Texas 78150-5000.

Copies of this report are distributed to Air Staff sections, major air commands, and other interested training and management personnel (see DISTRIBUTION on page i). Additional copies are available upon request to the Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph AFB, Texas 78150-5000.

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## SUMMARY OF RESULTS

1. Sample: At the time of this survey, there were 5,356 members assigned. A stratified random sample of 2,904 career ladder personnel were administered the survey. The final sample size (based on usable booklets returned) was 2,398 or 83 percent of the total random sample.

2. Career Ladder Structure: Two clusters (containing a total of 5 job types) and 5 independent job types were identified in this career ladder. The 2 clusters are Supervisory Personnel and Ground Radio Maintenance. The 5 independent job types are Quality Control, Supply, Engineering and Installation (E&I), Technical Training, and Maintenance Job Control. These jobs accounted for 84 percent of the total survey sample.

3. Career Ladder Progression: Career ladder progression for AFSC 304X4 personnel was normal, with 3- and 5-skill level personnel performing primarily technical tasks, and 7-skill level members performing more supervisory duties. AFR 39-1 specialty descriptions for the various skill levels were also analyzed and found descriptive of the various duties and responsibilities of the career ladder.

4. Training Analysis: Both the Specialty Training Standard and the ABR course Plan of Instruction were analyzed against career ladder data. Both products were found in need of review by training personnel with a goal toward updating or revising the documents.

5. Job Satisfaction: Job satisfaction indicators were generally high for all career ladder members. There were no significant differences between AFSC 304X4 experience group data and comparative sample information.

6. Comparison to Previous Survey: Very little change was noted between the current OSR and the previous study (published in 1981). Some minor changes occurred in terms of first-enlistment equipment usage and examples are discussed and displayed in that section.

7. Implications: Career ladder progression was normal. AFCC was noted as the largest user, and no CONUS/overseas imbalance problems were noted. Training documents were in need of review/revision.

OCCUPATIONAL SURVEY REPORT  
GROUND RADIO COMMUNICATIONS CAREER LADDER  
(AFSC 304X4)

INTRODUCTION

This report presents the results of an occupational survey of the Ground Radio Communications career ladder (AFSC 304X4). The survey was initiated at the request of 3300 TCHTW/TTGX, Keesler AFB, Mississippi, for training considerations. The data will be used by training personnel at the Keesler Technical Training Center (KTTC) in the evaluation and management of training programs for this career ladder. Previous occupational survey results of this AFSC were published in November 1981 and July 1976.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-304-492. Previous task lists for this specialty were carefully reviewed by subject-matter experts at both the technical training school and five operational bases. Obsolete tasks were deleted and new tasks added where appropriate. Operational bases involved included Kelly AFB TX, Holloman AFB NM, Bergstrom AFB TX, Goodfellow AFB TX, and Davis-Monthan AFB AZ. The resulting task list was reviewed again by Keesler Technical Training Instructors who ensured the tasks were representative of the duties performed by AFSC 304X4 personnel. The resulting inventory also contained background questions, such as Total Active Federal Military Service (TAFMS), work area, organizational level, job satisfaction, and equipment information.

Survey Administration

The inventory was distributed to Consolidated Base Personnel Offices (CBPO) in operational units worldwide for administration to a stratified random sample of 2,904 job incumbents, selected from a computer-generated mailing list obtained from the Air Force Human Resources Laboratory (AFHRL), Brooks AFB, Texas.

To complete the survey, each incumbent first answered the background section (identification and biographical information) and then checked each task performed in their current job. Members then rated checked tasks on a 9-point scale, showing relative time spent on each task as compared to all others. The rating ranged from one, representing a very small amount of time

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spent, to nine, representing a very large amount of time spent. All of the incumbents' ratings are combined, multiplied by 100, and divided by the total number of responses, and the total assumed to represent 100 percent of their job time. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

### Survey Sample

Personnel were selected to participate in this survey based on a stratified random sample to ensure an accurate representation across major commands (MAJCOM) and paygrade groups. AFCC, the single largest user of AFSC 304X4 personnel, showed a 13-point difference between percent assigned and percent sampled. However, after a careful review of the data, it was determined that this difference did not significantly affect the overall results of this survey.

Table 1 reflects the percentage distribution, by major command, of respondents in the final survey sample. The 2,398 respondents included in the final sample represent 45 percent of the total assigned AFSC 304X4 personnel. Table 2 reflects paygrade group distributions, while Table 3 lists sample distribution by TAFMS groups. Percent of airmen sampled is slightly lower than those assigned (Table 2). However, since personnel in technical training school are not surveyed, nor are members on the job less than 6 weeks, this finding is not unexpected and does not affect the accuracy of the data.

TABLE 1  
COMMAND REPRESENTATION OF SURVEY SAMPLE  
AFSC 304X4

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED (N=5,356)</u>	<u>PERCENT OF SAMPLE (N=2,398)</u>
AFCC	70	57
ESC	8	12
TAC	8	11
ATC	5	4
USAFE	4	6
MAC	1	2
PACAF	1	1
AFSC	1	1
AFELM	*	1
SAC	1	1
AFSINC	*	1
AFELM/OTHER	<u>1</u>	<u>2</u>
TOTAL	100	99**

Total Assigned - 5,356  
Total Eligible - 2,904  
Total in Sample - 2,398  
Percent of Assigned in Sample - 45%  
Percent of Eligible in Sample - 83%

\* Denotes less than .5 percent  
\*\* Total may not add up to 100 percent due to rounding

TABLE 2  
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE  
AFSC 304X4

<u>PAYGRADE</u>	<u>PERCENT OF ASSIGNED (N=5,356)</u>	<u>PERCENT OF SAMPLE (N=2,398)</u>
E-1 - E-3	33	28
E-4	23	23
E-5	23	25
E-6	13	15
E-7	8	9
E-8	<u>*</u>	<u>*</u>
TOTAL	100	100

\* Denotes less than .5 percent

TABLE 3  
TAFMS DISTRIBUTION OF SURVEY SAMPLE  
AFSC 304X4

<u>TAFMS (MONTHS)</u>	<u>PERCENT OF ASSIGNED (N=5,356)</u>	<u>PERCENT OF SAMPLE (N=2,398)</u>
1-48	54	42
49-96	17	20
97-144	12	16
145-192	7	11
193-240	7	9
241+	<u>2</u>	<u>2</u>
TOTAL	99	100

NOTE: Totals may not add up to 100 percent due to rounding

#### Task Factor Administration

In addition to completing the job inventory, selected senior AFSC 304X4 personnel also completed a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from job inventories. When used in conjunction with other factors, such as percent members performing, task factor data (task difficulty and training emphasis) can provide an insight into training requirements.

Task Difficulty. Senior technicians who completed a task difficulty booklet were asked to rate all tasks on a 9-point scale (from extremely low to extremely high) as to the relative difficulty of each task in the inventory. Difficulty is defined as the length of time required by an average member to learn to do the task. Task difficulty data were independently collected from 63 experienced 7-skill level personnel stationed worldwide. The interrater reliability (as assessed through components of variance of standard group means) of .96 for AFSC 304X4 raters suggests a high level of agreement among raters as to which tasks were most difficult to learn. Task difficulty ratings are standardized to a mean of 5.00 and a standard deviation of 1.00.

Job Difficulty Index (JDI). After computing a task difficulty rating for each task item, it is then possible to also compute a Job Difficulty Index (JDI)

for the job groups identified in the survey analysis. This index provides a relative measure of which jobs, when compared to other jobs, are more or less difficult. The number of tasks performed and the average difficulty per unit time spent (ADPUTS) are used as variables in an equation that calculates the JDI. The index ranges from 1.0 for very easy jobs to 25.0 for very difficult jobs. The indices are adjusted so the average JDI is 13.00.

Training Emphasis (TE). Each senior technician who completed a training emphasis booklet was asked to rate tasks on a 10-point scale, from (0) no training required to (9) extremely intense training required. Training emphasis is a rating based on the perceptions of senior career ladder NCOs on which tasks require structured training for first-term personnel. Structured training is defined as training provided at resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Training emphasis data were independently collected from 60 experienced 7-skill level personnel stationed worldwide. The interrater reliability for these raters was .95, indicating a very high level of agreement among raters as to which tasks required some form of structured training and which did not. In this specialty, tasks rated high in training emphasis have ratings of 3.63 and above, with an average training emphasis of 2.13.

#### SPECIALTY JOBS (Career Ladder Structure)

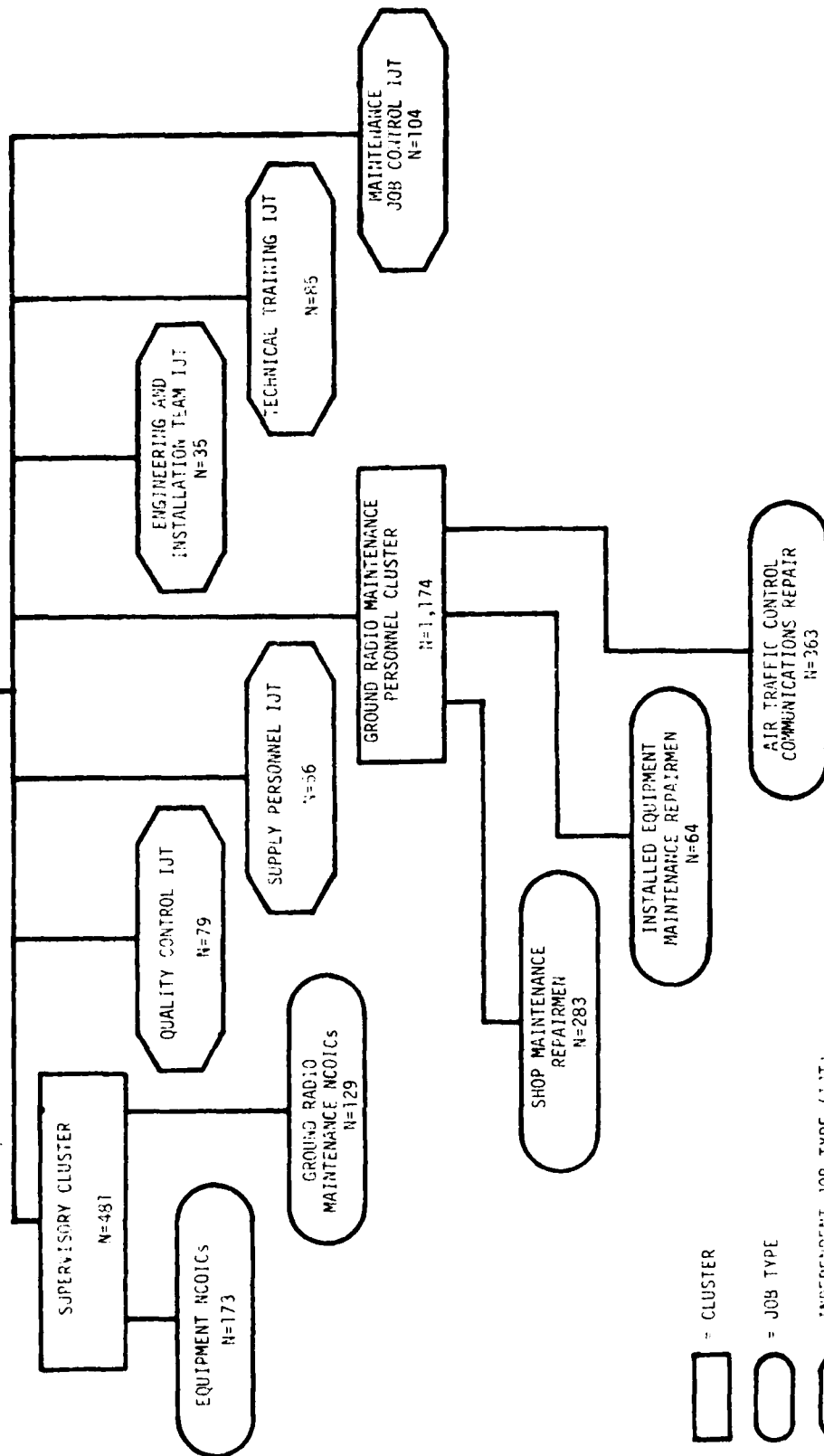
When job inventories are returned from CBPOs, the background information and task responses are checked for proper completion. These data are then entered into the computer. A series of related computer programs, called Comprehensive Occupational Data Analysis Programs (CODAP), are then applied to these data to aid in analysis. Using CODAP, groups of survey respondents are identified based on time spent and task performance variables. The basic identifying group used in the hierarchical job structuring process is called a job type. A job type is a group of individuals who perform essentially the same tasks, and spend similar amounts of time doing so. Where there is a substantial degree of similarity between job types, they group together to form a cluster. An independent job type is a specialized job too dissimilar to others to be included in a cluster.

Analysis of the Ground Radio Communications survey results identified 2 clusters, 5 job types within these clusters, and 5 independent job types. Based on task similarity and relative time spent, the division of jobs performed by AFSC 304X4 personnel is illustrated in Figure 1. These clusters, job types, and independent job types are listed below. The group (GRP) number shown beside each title is a reference to the computer printed information; the number of personnel in the group (N) is also shown. The number of personnel in the job types which form each cluster does not necessarily equal the total number shown for that cluster; in those cases, the jobs of the remainder of the personnel not captured by a job type are adequately covered by the general cluster description.

FIGURE 1

CLUSTERING DIAGRAM REPRESENTATION

TOTAL SAMPLE N=2,904



- I. SUPERVISORY CLUSTER (GRP168, N=481)
  - A. Equipment NCOICs (GRP681, N=173)
  - B. Ground Radio Maintenance NCOICs (GRP672, N=129)
- II. QUALITY CONTROL INDEPENDENT JOB TYPE (GRP555, N=79)
- III. SUPPLY PERSONNEL INDEPENDENT JOB TYPE (GRP126, N=56)
- IV. GROUND RADIO MAINTENANCE PERSONNEL CLUSTER (GRP062, N=1,174)
  - A. Shop Maintenance Repairmen (GRP382, N=283)
  - B. Air Traffic Control (ATC) Communications Repair (GRP330, N=363)
  - C. Installed Equipment Maintenance Repairmen (GRP244, N=64)
- V. ENGINEERING AND INSTALLATION (E&I) INDEPENDENT JOB TYPE (GRP278, N=35)
- VI. TECHNICAL TRAINING INDEPENDENT JOB TYPE (GRP236, N=85)
- VII. MAINTENANCE JOB CONTROL INDEPENDENT JOB TYPE (GRP058, N=104)

#### Group Descriptions

The following paragraphs contain brief descriptions of identified clusters, job types, and independent job types. Selected background data are provided for these groups in Table 4. Appendix A contains additional task information for each job presented.

I. SUPERVISORY CLUSTER (GRP168, N=481). There are 481 members in this group which covers 20 percent of the total survey sample and make this the second largest cluster in the survey. The average rank is technical sergeant (E-6), and most members hold a 7-skill level. Average TAFMS is 154 months, with an average of 138 months in the career field, and 45 percent are stationed at overseas locations.

A typical member of this group spends 50 percent of his total job time performing 94 tasks. These tasks are almost entirely related to organizing and planning, directing and implementing, and evaluating and inspecting functions. Tasks performed are also basically administrative in nature, indicating that these people are not line or technical supervisors, but rather section or organization NCOICs.

There are two job types in this cluster. The first is Equipment NCOICs, (GRP681, N=173), whose job it is to supervise personnel and manage equipment in support of maintenance functions. The second is Ground Radio Maintenance NCOICs, (GRP672, N=129), whose job is still purely management and supervision, but in support of maintenance operations. The major difference in these job types is more in terms of the different types of administrative forms utilized, which is driven by the area supervised, but both are clearly management positions.

TABLE 4  
SELECTED BACKGROUND INFORMATION FOR CLUSTERS  
AND INDEPENDENT JOB TYPES

	<u>SUPERVISORY CLUSTER (GRP168)</u>	<u>QUALITY CONTROL IJT (GRP555)</u>	<u>SUPPLY PERSONNEL IJT (GRP126)</u>	<u>GROUND RADIO MAINTENANCE CLUSTER (GRP062)</u>
NUMBER IN GROUP	481	79	56	1,174
PERCENT OF TOTAL GROUP	20%	3%	2%	49%
PERCENT IN CONUS	55%	52%	54%	60%
<hr/>				
DAFSC DISTRIBUTION				
30434	1%	0%	2%	19%
30454	30%	27%	50%	74%
30474	69%	73%	48%	7%
<hr/>				
AVERAGE PAYGRADE	E-6	E-6	E-5	E-4
AVERAGE MONTHS IN CAREER FIELD	138	147	129	46
AVERAGE MONTHS IN FEDERAL SERVICE	154	161	138	53
<hr/>				
PERCENT IN FIRST ENLISTMENT	4%	3%	11%	65%
AVERAGE NUMBER SUPERVISED	4	3	2	2
AVERAGE NUMBER OF TASKS PERFORMED	154	70	61	88
<hr/>				
JOB DIFFICULTY INDEX (JDI) (AVERAGE JDI = 13.00)	18	13	11	14

TABLE 4 (CONTINUED)  
SELECTED BACKGROUND INFORMATION FOR CLUSTERS  
AND INDEPENDENT JOB TYPES

	ENGINEERING AND INSTALLATION IJT (GRP278)	TECHNICAL TRAINING IJT (GRP236)	MAINTENANCE JOB CONTROL IJT (GRP058)
NUMBER IN GROUP	35	85	104
PERCENT OF TOTAL GROUP	1%	4%	4%
PERCENT IN CONUS	71%	95%	49%
DAFSC DISTRIBUTION			
30434	17%	0%	3%
30454	57%	48%	79%
30474	26%	52%	18%
AVERAGE PAYGRADE	E-4	E-6	E-5
AVERAGE MONTHS IN CAREER FIELD	65	120	77
AVERAGE MONTHS IN FEDERAL SERVICE	74	131	87
PERCENT IN FIRST ENLISTMENT	51	12	29
AVERAGE NUMBER SUPERVISED	5	5	2
AVERAGE NUMBER OF TASKS PERFORMED	82	34	21
JOB DIFFICULTY INDEX (JDI) (AVERAGE JDI = 13.00)	14	10	7

Typical tasks performed by members of this group include:

- write correspondence
- determine work priorities
- write Airman Performance Reports
- supervise ground radio communications specialists (AFSC 30454)
- establish work schedules
- review supply daily document registers
- schedule leaves, passes, or TDY
- review inspection reports
- indorse Airman Performance Reports

II. QUALITY CONTROL INDEPENDENT JOB TYPE (GRP555, N=79). This group contains 79 members which covers 3 percent of the total survey sample. The average paygrade is technical sergeant (E-6), average TAFMS is 161 months, and 48 percent are stationed at overseas locations. As expected, most Quality Control personnel are at the 7-skill level.

The quality control job is mostly an inspection function, with group members performing observation/inspection tasks followed by completing various administrative reports. Fifty percent of their total job time is spent on 33 tasks which are basically covered under 2 duties. These duties are: evaluating and inspecting, and performing administrative functions.

Typical tasks associated with this IJT are:

- conduct inspections
- make entries on AF Forms 2419 (Routing and Review of Quality Control Reports)
- make entries on AF Forms 2420 (Quality Control Inspection Summary)
- review inspection reports
- evaluate compliance with performance standards
- implement quality control standards
- review maintenance or inspection reports
- evaluate quality control/assurance procedures
- evaluate inspection reports or procedures
- evaluate technical order improvement reports

III. SUPPLY PERSONNEL INDEPENDENT JOB TYPE (GRP126, N=56). This group contains 56 members (2 percent of the total survey sample). Their average rank is staff sergeant, average TAFMS is 137 months, and there is almost an even split in skill level distribution, with 50 percent at the 5-skill level and 48 percent at the 7-skill level. Most members (73 percent) are assigned to Air Force Communications Command (AFCC) and nearly half (46 percent) are stationed at locations outside the continental United States (CONUS).

Personnel spend 50 percent of their total job time performing 40 tasks. These tasks are basically associated with supply and equipment functions and are mostly administrative in orientation. Seven of the 40 tasks which personnel spend most of their job time on are associated with organizing and planning duties. Typical tasks include:

- make entries on AF Forms 601 (Equipment Action Request)
- research microfiche files for supply requisition data
- make entries on AF Forms 1297 (Temporary Issue Receipt)
- inventory equipment, tools, or supplies
- make entries on AF Forms 9 (Request for Purchase)
- conduct inspections
- complete AF Forms 2005 (Issue/Turn-In Request)
- review supply daily document registers
- maintain correspondence files
- evaluate supply problems

IV. GROUND RADIO MAINTENANCE PERSONNEL CLUSTER (GRP062, N=1,174). This is easily the largest group in the survey, as it contains 1,174 members; it covers nearly half (49 percent) of the total survey sample. The average paygrade is staff sergeant (E-4), average TAFMS is 53 months, and the largest percentage (74 percent) are at the 5-skill level. Forty percent of the 1,174 group members are stationed at overseas locations.

Nearly all tasks performed by members of this cluster are technically oriented, making these people the technicians of the specialty. They solder, lubricate, align, isolate, remove, install, replace, and bench check every equipment item and component of a ground radio communications system. They also perform corrosion control functions, maintain tools, and make the necessary entries on various related administrative forms. Any supervision performed by group members is in the position of shift, flightline, or first-line supervisor, though 74 percent were found to be performing no supervisory functions at all.

Job types associated with this cluster include Shop Maintenance Repairmen (GRP382, N=233), Air Traffic Control Communications Repairmen (GRP330, N=363), and Installed Equipment Maintenance Repairmen (GRP169, N=231). These job types are all technical and members of each utilize about the same skills and repair tools and equipment, but are separated by the type of system they maintain, and the location in which they perform this repair function.

Typical tasks performed by cluster members include:

- solder communications equipment components
- perform corrosion prevention on ground radio communications equipment
- operationally check HF (High Frequency) equipment
- lubricate mechanical parts of ground radio equipment

- operationally check UHF (Ultra High Frequency) communications equipment
- isolate malfunctions within HF equipment
- align HF equipment
- isolate malfunctions within UHF equipment
- align UHF equipment
- remove or install UHF equipment parts

V. ENGINEERING AND INSTALLATION (E&I) INDEPENDENT JOB TYPE (GRP278, N=351). These 35 people represent slightly more than 1 percent of the total survey sample. Their average paygrade is sergeant/senior airman (E-4), though only two of the members are senior airmen. Average TAFMS is 74 months, more than half of the total group population is at the 5-skill level, and 29 percent are stationed at overseas locations.

While this job is extremely technical, it is not at all similar to jobs performed in the Ground Radio Maintenance Personnel cluster. E&I people perform very little troubleshooting or repair tasks, but they perform a large number of installation tasks. This is the group which would be dispatched in team format to perform the initial setup of ground radio communications systems. Sometimes permanent, sometimes auxiliary, they install the equipment or systems, then leave the standard maintenance and repair functions to ground radio maintenance people. Group members seem to be TDY on a near constant basis. Nearly 95 percent report being TDY up to and beyond 180 days per year. This finding is expected of personnel with a job such as this since initial installation is normally at a different location each time a new job starts.

Typical tasks performed by E&I personnel include:

- install UHF transceivers
- install multiple channel UHF transceivers
- install multiple channel UHF transmitters
- install UHF receivers
- install UHF transmitters
- install VHF exciters
- install VHF power amplifiers
- install UHF linear power amplifiers
- install microphones or microphone jacks
- install UHF exciters

VI. TECHNICAL TRAINING INDEPENDENT JOB TYPE (GRP236, N=85). There are 85 people in this group (4 percent of the total survey sample) and, as expected, most are assigned to Air Training Command. One member stated that he was assigned to an FTD (Field Training Detachment) in Electronic Security Command (ESC). The most common paygrade is technical sergeant (E-6). Average TAFMS is 131 months, 48 percent hold a 5-skill level, and only 3 people indicated they were performing any type of supervisory functions. On the average, group members are performing 34 tasks, with 14 tasks consuming 50 percent of their total job time.

Formal ABR (3-skill level awarding) course training is conducted at Keesler AFB, Mississippi. Career development courses are written and revised at Keesler by technical training personnel, as are the Specialty Training Standard (STS) and the course Plan of Instruction (POI). The largest part of the job, however, is in the performance of instructor duties. Operating mainly in a structured classroom environment, group members instruct and demonstrate course training objectives to new ground radio communications personnel. They also observe and evaluate student performance and progression through the course, and annotate student abilities on the appropriate administrative forms.

Examples of tasks performed include:

- conduct resident course classroom training
- prepare lesson plans
- administer tests
- score tests
- write test questions
- counsel trainees on training progress
- develop resident course or Career Development Course (CDC) curriculum materials
- develop training aids
- conduct safety training
- maintain counseling forms
- prepare training reports

VII. MAINTENANCE JOB CONTROL INDEPENDENT JOB TYPE (GRP058, N=104). This group covers 4 percent of the total survey sample (104 members). The average grade is staff sergeant (E-5), average TAFMS is 87 months, and 51 percent are stationed at overseas locations. Group members perform an average of 21 tasks with 19 tasks consuming 50 percent of their total job time.

Job control personnel work in a coordinating agency. They maintain status boards, take work orders, annotate the appropriate forms, and disseminate information to the appropriate functional area. Members of this group do not generally troubleshoot, repair, or replace components on communications equipment in the performance of their job, although they do maintain technical expertise and may be called on at any time.

Examples of tasks performed by members of this group include:

- coordinate work activities with other sections or agencies
- determine work priorities
- plan or prepare briefings
- review preventive maintenance schedules
- review maintenance data collection forms
- schedule work assignments or priorities
- direct development or maintenance of status boards, graphs, or charts

conduct OJT  
adjust daily maintenance plans to meet  
operational commitments

### Summary

The Ground Radio Maintenance cluster was the largest job identified in career ladder analysis. It accounted for 1,174 members, or 49 percent of the survey sample. The smallest was the Engineering and Industrial (E&I) independent job type which contained 35 members or 1 percent of the survey. The most senior group (73 percent at the 7-skill level and average grade E-6) was the Quality Control IJT, while the most junior (65 percent in their first enlistment) was the Ground Radio Maintenance cluster. These and other statistics are located in Table 4 and in Appendix I to this report.

## ANALYSIS OF DAFSC GROUPS

The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information is used to evaluate how well career ladder documents, such as the AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS), reflect what career ladder personnel are actually doing in the field.

### 5- and 7-Skill Level Descriptions

DAFSC 30454. This is the largest skill level group, containing 1,409 members. On the average, they perform 82 tasks, with 97 tasks accounting for 50 percent of their total job time. Over 41 percent are stationed at locations outside the continental United States.

Top tasks performed by members of this group include soldering communications equipment components, performing corrosion control prevention on ground radio communications equipment, and operationally checking HF equipment. Five-skill level personnel are also responsible for records data collection on areas such as equipment down, or out-of-commission time. They are the experienced technicians who are depended on to have the required knowledge necessary to get the job done.

DAFSC 30474. There are 711 7-skill level members in this survey. They perform an average of 99 tasks, with 101 tasks accounting for 50 percent of their total job time. Nearly 39 percent are stationed at overseas locations.

As expected, personnel at this skill level perform more administrative/managerial/supervisory tasks than members of lower skill-level groups. Top tasks utilized by 7-skill level group members include those related to organizing, planning, directing, and implementing duties. Examples include attending staff meetings, writing and/or indorsing Airman Performance Reports (APR), scheduling leaves and passes, and writing correspondence.

This career field shows good steady skill level growth with excellent utilization patterns. Tables 5 and 6 give examples of tasks performed at the 5- and 7-skill levels.

#### ANALYSIS OF FIRST-ENLISTMENT PERSONNEL

First-enlistment members are the target group for training. In other words, an in-residence course Plan of Instruction (POI) is written to the task performance level of a first-enlistment individual. It then becomes important to analyze the first-enlistment group before considering career ladder training documents.

##### First-Enlistment Personnel

First-enlistment personnel (1-48 months) number 997 in this study, or 42 percent of the survey sample. These airmen perform a full range of ground radio maintenance duties. Examples of these are: performing shop maintenance of ground radio equipment, maintaining installed ground radio equipment, maintaining installed auxiliary equipment, performing component shop maintenance, installing ground radio and auxiliary equipment, and maintaining ground support equipment. Table 7 provides a list of representative tasks of this group. Members of this group perform an average of 74 tasks.

Two-thirds of these airmen hold the paygrade of E-3, 8 percent are women, and 70 percent have completed at least 12 years of education or its equivalent, with 24 percent having 13 to 14 years of education. Nearly 42 percent are in their first job.

Distribution of group members across specialty jobs is displayed in Figure 2, and reflects fairly well the distribution of the career ladder as a whole. As the pie chart displays, the Ground Radio Maintenance cluster is the job with the largest number of first-enlistment personnel. In fact, 90 percent of all first-enlistment members are in this cluster. The Quality Control IJT has the smallest percentage (less than 1 percent) of first termers, but this is to be expected of a job with such intensive experience requirements. Since training should be geared toward the largest user, this pie chart representation should be useful in determining where the largest first-enlistment group membership can be found, and where training should be directed.

#### ANALYSIS OF 30454 CONUS VERSUS OVERSEAS GROUPS

Comparisons were made between CONUS and overseas groups in terms of task performance. A total of 1,405 5-skill level members were included in this comparison (827 CONUS/578 overseas). Overseas personnel reported performing

TABLE 5  
EXAMPLES OF TASKS PERFORMED BY 30450 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=1,409)
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	69
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	65
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	65
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICATIONS EQUIPMENT (GRCE)	61
H383 OPERATIONALLY CHECK HF EQUIPMENT	60
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	59
H380 LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	57
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	57
J491 ALIGN HIGH FREQUENCY (HF) EQUIPMENT	56
F262 PAINT FACILITIES OR EQUIPMENT	56
H392 OPERATIONALLY CHECK UHF EQUIPMENT	55
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	54
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	52
J534 REMOVE OR INSTALL HF EQUIPMENT PARTS	51
J499 ALIGN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	51
H378 ISOLATE MALFUNCTIONS WITHIN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	51
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	49
J541 REMOVE OR INSTALL UHF EQUIPMENT PARTS	49
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	48
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	48
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	47
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAINING RECORD)	47
D141 CONDUCT OJT	47
A7 COORDINATE WITH MAINTENANCE CONTROL ON MAINTENANCE PROBLEMS	44
H393 OPERATIONALLY CHECK VHF EQUIPMENT	43
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	43
F232 COORDINATE WITH BASE SUPPLY ON OBTAINING PARTS	42
A11 DETERMINE WORK PRIORITIES	42
J524 BENCH CHECK UHF TRANSCEIVERS	42
H379 ISOLATE MALFUNCTIONS WITHIN VERY HIGH FREQUENCY (VHF) EQUIPMENT	41

Average number of tasks performed - 82

TABLE 6  
EXAMPLES OF TASKS PERFORMED BY 30470 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=711)
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	82
B91 WRITE CORRESPONDENCE	70
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	69
C131 WRITE APR	64
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAINING RECORD)	63
C119 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	62
B81 ORIENT NEWLY ASSIGNED PERSONNEL	62
A11 DETERMINE WORK PRIORITIES	60
B54 COUNSEL SUBORDINATES ON PERSONAL OR MILITARY-RELATED MATTERS	59
B53 COUNSEL SUBORDINATES ON JOB PROGRESSION OR CAREER DEVELOPMENT	58
D167 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	56
B79 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	55
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	55
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	53
A46 SCHEDULE LEAVES, PASSES, OR TDY	52
D147 COUNSEL TRAINEES ON TRAINING PROGRESS	50
A48 SCHEDULE WORK ASSIGNMENTS AND PRIORITIES	50
D141 CONDUCT OJT	49
C124 REVIEW INSPECTIONS REPORTS	49
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	49
C129 REVIEW, EDIT, OR COORDINATE ON OFFICIAL CORRESPONDENCE OR MESSAGES	49
C128 REVIEW SUPPLY DAILY DOCUMENT REGISTERS	48
A7 COORDINATE WITH MAINTENANCE CONTROL ON MAINTENANCE PROBLEMS	48
F272 REVIEW SUPPLY DAILY DOCUMENT REGISTERS (D04/804-11)	48
B88 SUPERVISE GROUND RADIO COMMUNICATIONS SPECIALISTS (AFSC 30454)	47
A27 PLAN OR PREPARE BRIEFINGS	47
E202 MAKE ENTRIES ON AF FORMS 2419 (ROUTING AND REVIEW OF QUALITY CONTROL REPORTS)	47
C93 CONDUCT INSPECTIONS	47
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	47
A10 DETERMINE REQUIREMENTS FOR SPACE, EQUIPMENTS, OR SUPPLIES	46

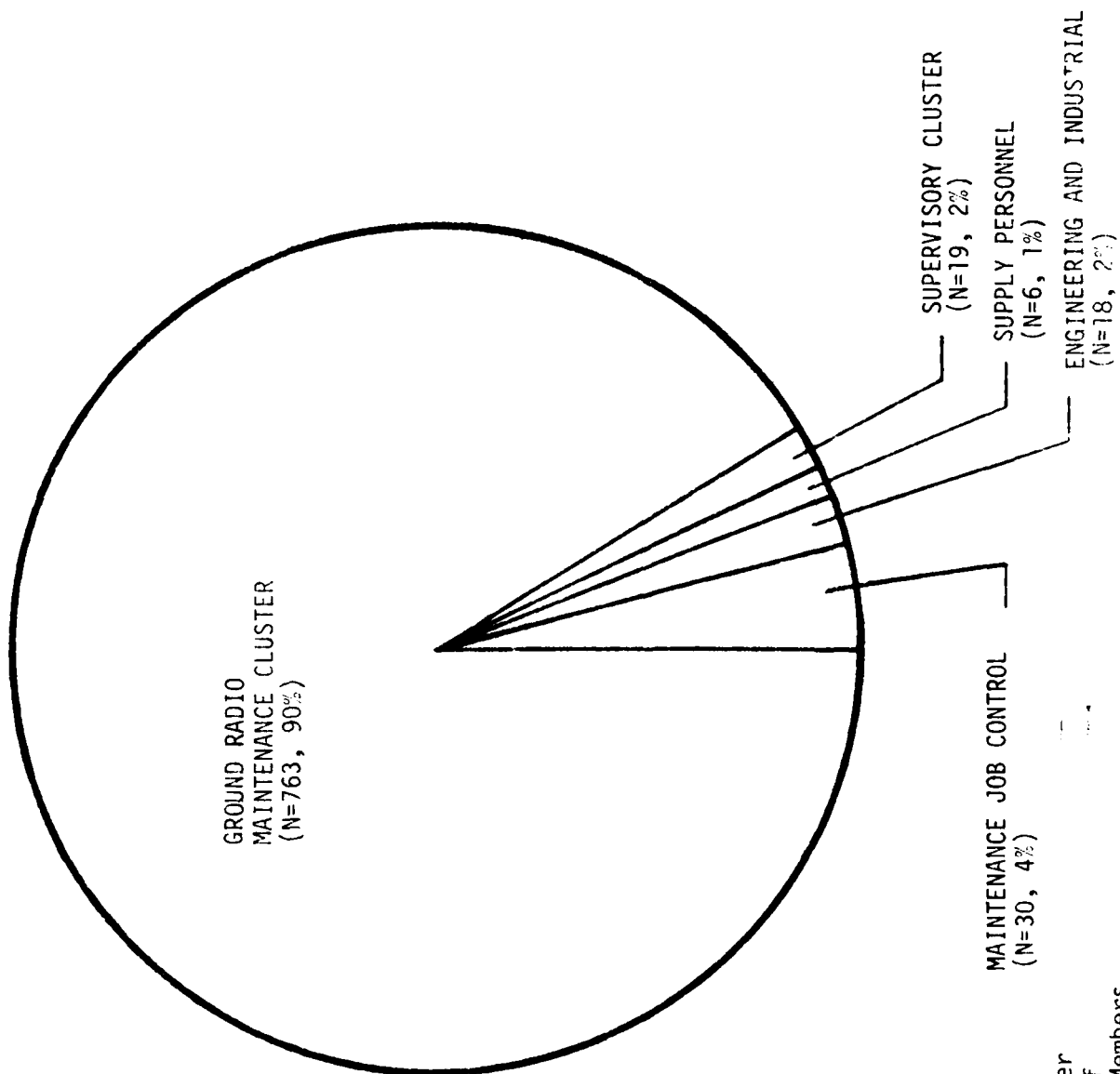
Average number of tasks performed - 99

TABLE 7

TASKS PERFORMED BY 50 PERCENT OR MORE  
1-48 MONTHS 304X4 PERSONNEL

TASKS	PERCENT PERFORMING (N=997)
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	75
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	70
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	69
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICA- TIONS EQUIPMENT (GRCE)	66
H380 LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	65
H392 OPERATIONALLY CHECK UHF EQUIPMENT	64
H383 OPERATIONALLY CHECK HF EQUIPMENT	63
F262 PAINT FACILITIES OR EQUIPMENT	61
H378 ISOLATE MALFUNCTIONS WITHIN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	60
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	60
J499 ALIGN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	60
J491 ALIGN HIGH FREQUENCY (HF) EQUIPMENT	59
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	57
J541 REMOVE OR INSTALL UHF EQUIPMENT PARTS	57
J534 REMOVE OR INSTALL HF EQUIPMENT PARTS	54
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	53
J524 BENCH CHECK UHF TRANSCEIVERS	51
H393 OPERATIONALLY CHECK VHF EQUIPMENT	50
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	49
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	49
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	49
H375 ISOLATE MALFUNCTIONS WITHIN MULTIPLE CHANNEL EQUIPMENT	48
H379 ISOLATE MALFUNCTIONS WITHIN VERY HIGH FREQUENCY (VHF) EQUIPMENT	47
J500 ALIGN VERY HIGH FREQUENCY (VHF) EQUIPMENT	47
J542 REMOVE OR INSTALL VHF EQUIPMENT PARTS	45
H377 ISOLATE MALFUNCTIONS WITHIN SIDE BAND EQUIPMENT	44
J523 BENCH CHECK UHF RECEIVERS	44
H386 OPERATIONALLY CHECK MULTIPLE CHANNEL EQUIPMENT	44
F233 DELIVER TEST EQUIPMENT TO MATERIEL CONTROL OR PMEL	44
J537 REMOVE OR INSTALL POWER SUPPLY EQUIPMENT PARTS	44
F232 COORDINATE WITH BASE SUPPLY ON OBTAINING PARTS	43
H391 OPERATIONALLY CHECK SIDE BAND EQUIPMENT	43
J497 ALIGN SIDE BAND EQUIPMENT	43

FIGURE 2  
FIRST-ENLISTMENT PIE CHART



NOTE: Quality Control Cluster equals less than 1% of all First-Enlistment Members

a slightly higher average number of tasks than CONUS members (84 tasks versus 81); however, close review of these tasks showed essentially no difference in the overall jobs performed by the two groups. There are a few minor differences in the types of equipment maintained, with overseas personnel reporting slightly more members involved with the R-2174(P)/URR HF recorder and slightly more CONUS personnel maintaining the following ground radio equipment: AN/GRC-171, AN/GRR-23, AN/GRT-21, AN/GRT-22, and AN/GSA-135. In terms of task and equipment usage, members from both groups perform essentially the same jobs.

Comparison of background data (table 8) revealed that overseas members averaged slightly more time in the career field (59 months versus 52 months for CONUS) and more time in service (67 months TAFMS versus 59 months TAFMS for CONUS).

### TRAINING ANALYSIS

Occupational survey data are also used to assess the consistency between those tasks which should be performed by an AFSC as outlined in the Specialty Training Standard (STS), what is being taught in the Technical Training School as detailed in the Plan of Instruction (POI), and the tasks which are actually being performed in the field, especially by first-term personnel. Factors provided by occupational surveys which may be used in such training evaluations are the percent of first job (1-24 months TAFMS) or first-enlistment (1-48 months TAFMS) personnel performing tasks, maintaining equipment, using test equipment, or using electronic principles. Of equal importance are Training Emphasis and Task Difficulty ratings (previously explained in the TASK FACTOR ADMINISTRATION section of this report).

Technical school personnel at the Keesler Technical Training Center matched inventory tasks to appropriate areas of the STS (dated May 1983) for the AFSC 304X4 Career Ladder and of the POI (dated 21 March 1984) for Course 3ABR30434. It is this matching upon which the comparisons of data to training documents is based. A complete computer listing containing the percent members performing, training emphasis ratings, and task difficult ratings for each task statement, along with STS and POI matchings has been forwarded to the technical school for use in future detailed review of training documents. A summary of that information is described below.

#### Training Emphasis

Table 9 lists the 20 tasks the Ground Radio Communications raters indicated as requiring the highest training emphasis. This list illustrates the kinds of tasks these raters consider important for first-term training. These tasks generally deal with maintaining installed ground radio equipment and performing shop maintenance on the same equipment, with emphasis being placed on bench checking tasks. All 20 tasks are performed by a significant

TABLE 8

## SELECTED BACKGROUND INFORMATION FOR 30454 CONUS/OVERSEAS GROUPS

	<u>CONUS PERSONNEL</u>	<u>OVERSEAS PERSONNEL</u>
NUMBER IN GROUP	827	578
PERCENT OF TOTAL GROUP	35%	24%
AVERAGE MONTHS IN THE CAREER FIELD	52	59
AVERAGE MONTHS IN FEDERAL SERVICE	59	67
AVERAGE NUMBER OF TASKS PERFORMED	81	84
<hr/>		
<u>PERCENT FINDING THEIR JOB INTERESTING:</u>	74	73
<u>PERCENT PERCEIVING THEIR TALENTS ARE UTILIZED AT LEAST FAIRLY WELL:</u>	76	79
<u>PERCENT PERCEIVING THEIR TRAINING IS UTILIZED AT LEAST FAIRLY WELL:</u>	69	71
<u>PERCENT SATISFIED WITH SENSE OF ACCOMPLISHMENT FROM WORK:</u>	66	64
<u>PERCENT PLANNING TO REENLIST:</u>	57	67

TABLE 9

TASKS RATED HIGHEST IN TRAINING EMPHASIS BY GROUND RADIO COMMUNICATIONS RATEES

TASKS	TRAINING EMPHASIS*	PERCENT MEMBERS PERFORMING		TASK DIFFICULTY**
		FIRST-ENLISTMENT (N=997)	TOTAL SAMPLE (N=2,398)	
H378 ISOLATE MALFUNCTIONS WITHIN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	6.82	60	45	6.44
J499 ALIGN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	6.78	60	45	6.13
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	6.75	75	60	5.05
J500 ALIGN VERY HIGH FREQUENCY (VHF) EQUIPMENT	6.72	47	35	6.10
J532 PERFORM HIGH RELIABILITY SOLDERING OF INTEGRATED CIRCUITS	6.65	35	31	6.33
H392 OPERATIONALLY CHECK UHF EQUIPMENT	6.63	64	49	4.30
J523 BENCH CHECK UHF RECEIVERS	6.60	44	33	5.87
H379 ISOLATE MALFUNCTIONS WITHIN VERY HIGH FREQUENCY (VHF) EQUIPMENT	6.55	47	36	6.39
J506 BENCH CHECK HF TRANSCEIVERS OR SUBASSEMBLIES	6.53	42	33	5.86
J525 BENCH CHECK UHF TRANSMITTERS	6.50	39	28	5.97
J491 ALIGN HIGH FREQUENCY (HF) EQUIPMENT	6.47	59	48	5.96
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	6.45	60	49	6.48
J524 BENCH CHECK UHF TRANSCEIVERS	6.45	51	36	6.01
J522 BENCH CHECK UHF POWER AMPLIFIERS	6.43	37	26	6.02
J504 BENCH CHECK HF POWER AMPLIFIERS OR SUBASSEMBLIES	6.38	39	29	5.87
J528 BENCH CHECK VHF TRANSCEIVERS	6.37	41	30	6.08
J527 BENCH CHECK VHF RECEIVERS	6.35	33	25	5.94
H393 OPERATIONALLY CHECK VHF EQUIPMENT	6.33	50	39	4.23
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA RECORD)	6.32	70	60	4.48
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	6.23	70	60	4.36

\* Average training emphasis is 2.13, with standard deviation of 1.50

\*\* Task difficulty rating of 5.00 is average

percentage (greater than 30 percent) of first-enlistment personnel and most tasks have above average task difficulty. Further mention of training emphasis data will be made in the sections of this report dealing with the STS and POI.

### Task Difficulty

Table 10 lists the 20 tasks rated the most difficult by AFSC 304X4 raters. These tasks are mainly associated with administrative and supervisory duties, but tasks dealing with the isolation of malfunctions in missile-related equipment are also included. Overall relatively few of either the first-enlistment or the total sample of AFSC 304X4 personnel perform tasks rated most difficult. Percentages of total sample personnel performing these difficult tasks is noticeably higher than the percentage of first-enlistment personnel performing these same tasks.

Table 11 lists tasks rated least difficult. Monitoring tasks predominate in this list and generally the percentage of first-enlistment personnel performing these tasks is higher than the percentage of the total sample performing them, although percent members performing are fairly low overall.

### Equipment

Personnel in AFSC 304X4 utilize and maintain a large number of systems and equipment in the performance of their jobs. It is important to identify this equipment, and more important to determine which of these items should be trained. In order that this need to identify equipment items requiring training be fulfilled, first-term (the target group for training) equipment utilization figures must be analyzed and displayed. It is equally important to see how equipment utilization changes as experience level increases. This allows at least two important observations to be made. First, viewing equipment usage in terms of experience level allows training personnel to determine when specific training should take place, and second, utilization patterns can be further analyzed. As experience and skill level increase, it is expected that duties and responsibilities will become more management- and supervisory-oriented, and less hands-on. Thus, as time increases, equipment utilization should decrease. Table 12 lists examples of equipment utilized by first-term, second-term, and career groups. This table clearly displays heavier equipment usage for first-term airmen. The table also shows examples of equipment items which would be good candidates for hands-on training in the 3-skill level ABR course, and which would not.

Generally equipment that is utilized by 50 percent or more first-term airmen should receive hands-on training in the basic course. As the table shows, many equipment items utilized in this career ladder meet this criterion. The table, however, displays examples only. A full computer listing of all equipment items and the associated percent members utilizing is supplied in a Training Extract to this report. This Extract is supplied to all training and utilization personnel as well as other interested users who require this information.

TABLE 10

## TASKS RATED MOST DIFFICULT BY GROUND RADIO COMMUNICATIONS RATERS

TASKS	TASK DIFF*	PERCENT MEMBERS PERFORMING	
		1ST ENL (N=997)	TOTAL SAMPLE (N=2,398)
D153 DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC)	7.68	1	3
CURRICULUM MATERIALS	7.68	2	43
C133 WRITE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	7.44	2	21
A17 DRAFT BUDGET OR FINANCIAL REQUIREMENTS	7.43	3	21
D151 DEVELOP NEW EQUIPMENT TRAINING PROGRAMS			
C134 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS, OTHER THAN TRAINING REPORTS	7.35	1	19
B68 DRAFT HIGHER HEADQUARTERS DIRECTIVES	7.34	-	5
D152 DEVELOP PERFORMANCE TESTS	7.31	3	22
C132 WRITE CIVILIAN PERFORMANCE RATINGS	7.30	-	6
N654 ISOLATE MALFUNCTIONS WITHIN 487L OR COMPONENTS	7.28	3	2
B87 SUPERVISE FOREIGN MILITARY PERSONNEL	7.26	1	3
N650 ISOLATE MALFUNCTIONS WITHIN TELEMETRY TRANSMITTERS OR COMPONENTS	7.25	-	-
A31 PLAN PHYSICAL LAYOUT OF COMMUNICATIONS SYSTEMS OR EQUIPMENT	7.11	5	12
A3 CONDUCT REQUIREMENTS SURVEYS FOR INSTALLATION OF FIELD GROUND RADIO COMMUNICATIONS EQUIPMENT (GRCE)	7.06	4	13
N647 ISOLATE MALFUNCTIONS WITHIN MINUTEMAN LAUNCH CONTROL CONSOLE (LGM-30) SYSTEMS	7.02	1	1
D179 WRITE TEST QUESTIONS	6.92	3	17
A30 PLAN PHYSICAL LAYOUT OF COMMUNICATIONS FACILITIES	6.90	3	8
D171 PREPARE LESSON PLANS	6.88	4	24
N649 ISOLATE MALFUNCTIONS WITHIN TELEMETRY RECEIVERS OR COMPONENTS	6.83	-	1
A21 ESTABLISH ORGANIZATIONAL POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	6.83	4	33
A5 CONDUCT REQUIREMENTS SURVEYS FOR INSTALLATION OF MOBILE COMMUNICATIONS SYSTEMS	6.80	4	11

\* Average task difficulty is 5.00, with a standard deviation of 1.00  
 - Less than 1 percent

TABLE 11

## TASKS RATED THE LEAST DIFFICULT BY GROUND RADIO COMMUNICATION RATERS

TASKS	TASK DIFF*	PERCENT MEMBERS PERFORMING	
		TST ENL (N=997)	TOTAL SAMPLE (N=2,398)
I466 MONITOR DATA LINK SYSTEMS	3.24	4	2
I460 OPERATIONALLY CHECK INTERCOM SYSTEMS	3.24	20	10
I487 VISUALLY INSPECT MOBILE ANTENNA SYSTEMS	3.23	23	13
L611 ISSUE OR TURN IN TEST EQUIPMENT	3.21	25	23
F244 ISSUE SUPPLIES AND EQUIPMENT	3.20	7	17
M627 LAY ELECTRICAL OR COMMUNICATIONS CABLES	3.17	26	14
M635 REMOVE OR INSTALL JACK STANDS	3.14	8	5
A43 PREPARE RECALL ROSTERS	3.11	4	19
L608 ASSIGN GOVERNMENT VEHICLES	3.05	3	10
I444 MONITOR BROADCASTING SYSTEMS	3.03	7	3
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	3.00	43	55
D168 OPERTE AUDIOVISUAL EQUIPMENT	2.99	8	20
I447 MONITOR FACSIMILE SYSTEMS	2.99	4	3
L612 OBTAIN OR TURN IN TOOLS OR SUPPLIES	2.96	30	34
I486 REPLACE HAND KEYS	2.95	10	3
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	2.94	4	32
I440 MONITOR AUTOMATIC KEYING SYSTEMS	2.92	5	2
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	2.91	49	2
I443 MONITOR BRANCHING AMPLIFIERS	2.88	5	3
I445 MONITOR COMMUNICATIONS PATCH PANELS	2.78	25	11
L610 CONDUCT TOOL BOX INVENTORIES	2.77	40	31
E197 MAKE ENTRIES ON AF FORMS 1800 (OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLE))	2.75	39	37
F233 DELIVER TEST EQUIPMENT TO MATERIEL CONTROL OR PNEI	2.66	44	28
I438 MONITOR AUDIO RECORDERS	2.63	27	12

\* Average task difficulty is 5.00, with a standard deviation of 1.00

TABLE 12  
EXAMPLES OF EQUIPMENT USED BY TAFMS GROUPS

EQUIPMENT	PERCENT MEMBERS UTILIZING		
	1-48	49-96	97+
DECIBEL METERS	85	75	59
DIGITAL MULTIMETERS	87	76	61
DISTORTION ANALYZERS	80	69	52
ELECTRONIC MULTIMETERS	84	71	60
FREQUENCY COUNTERS	89	78	63
FREQUENCY METERS	30	27	21
FIELD STRENGTH METERS	8	7	7
IMPEDANCE MATCHING DEVICES	71	57	43
POWER METERS	69	55	42
SPECTRUM ANALYZERS	40	36	36
INSULATION TEST SETS	28	32	29
OSCILLOSCOPES	90	79	65

### Specialty Training Standard (STS)

A comprehensive review of STS 304X4, dated May 1963, was made comparing STS items to survey data. STS paragraphs containing general information such as career ladder progression and security were not evaluated. One STS paragraph, CE Equipment Maintenance Management, requiring only subject-matter knowledge but no performance, was also not evaluated. Paragraph 9, covering Electronic Fundamentals, will be discussed in a separate section of this training analysis. Four areas of review bear comment. These are:

- A. STS paragraphs which have no matched tasks
- B. STS paragraphs having matched tasks with below average training emphasis (less than 2.13) and low percent members performing (less than 20%)
- C. STS paragraphs having matched tasks with high training emphasis (greater than 3.63) and low percent members performing (less than 20%)
- D. Tasks in the job inventory not matched to any STS paragraphs

STS paragraphs having no matched tasks as explained by "A" above, are as follows:

6G	Replace Multiconductor Cables	2b	3c	4c
7C(4)	Align and Adjust External Linear Power Amplifiers	2b	3c	4c
7H	Repair Defective Components or Component Parts	2b/1c	3c	4c
8A	Locate Technical Order Number and Titles in Index-Type Technical Orders	2b/-	3c	4c
8L	Use Abbreviated Technical Orders When Performing Inspections and Maintenance	2b	3c	4c
8E	Locate Maintenance, Management, and Administrative Information in Methods and Procedures Technical Orders	2b/-	3c	4c
10C	Perform Equipment Maintenance Using Listed Test Equipment	2b	3c	4c

The fact that these paragraphs, with task performance proficiency codes assigned, did not have inventory tasks matched to them, could mean that an

applicable task was mistakenly not matched, the element was inappropriately coded as a performance item rather than a knowledge item, or that there were no clearly defined inventory tasks appropriate to that element. In the case of STS paragraph 10C relating to the use of test equipment, it is adequately covered by equipment questions contained in the background section of the inventory and can be found in the training extract which supports this OSR. This extract contains an equipment VARPCT that displays equipment use data. Subject-matter specialists and training personnel should review the remaining elements in detail to insure that inclusion is justified.

There are two STS paragraphs where most of the matched task statements have average or below average training emphasis ratings (2.14 or below) and low percent members performing (less than 20 percent). These STS paragraphs are:

10D	Recognize Defective Test Equipment	2b/b	3c	4c
12D	Update CE Facility Records (CEFR)	-	2b	3c

Paragraph 10D has some support at the 7-skill level where there are 35 percent of members performing, but apart from this, these two paragraphs should be reviewed to insure that inclusion in the STS is justified.

Tasks having high (greater than 3.63) training emphasis and low percent members performing (less than 20%) were found in eight STS paragraphs (Table 13). Although raters have assessed these supporting tasks as above average in training emphasis, the continued inclusion of the reported paragraphs in the STS should be reviewed in light of the low percent members performing figures. The percent members performing factor is normally a stronger indicator than training emphasis in determining whether or not an item should be included/retained in the STS.

Tasks which were not referenced to any element of the STS are listed at the end of the STS computer format. These 190 tasks were reviewed to determine if they were concentrated around a common function or piece of equipment. No particular trend or functional grouping of these tasks was noted; 158 tasks had below average (less than 2.13) training emphasis and low percent members performing and, therefore, may not warrant inclusion in structured training. There were two tasks, however, which rated above average in training emphasis (greater than 3.63) and had greater than 20 percent members performing. These tasks, lubricating mechanical parts of ground radio equipment and fabricating test adaptors, should be reviewed by training personnel to ensure that they are covered by the STS. The other tasks on the "not referenced" list should be evaluated to determine if coverage of any of them is justified in the STS.

#### Plan of Instruction (POI)

Based on the previously mentioned assistance from technical school subject-matter specialists in matching inventory tasks to the 3ABR30434 POI, dated 21 March 1984, a computer printout was generated showing the results of

TABLE 13  
STS PARAGRAPHS HAVING MATCHED TASKS WITH HIGH TE AND  
LOW PERCENT MEMBERS PERFORMING

<u>STS PARA NO.</u>	<u>PARAGRAPH</u>	<u>PROFICIENCY CODE</u>
	<u>ALIGN AND ADJUST</u>	
6C1	POINT-TO-POINT	2B/- 3C 4C
6C2	GROUND TO AIR	2B 3C 4C
6C3	BASE COMMUNICATIONS	2B/- 3C 4C
6C5	MISSILE COMMUNICATIONS	2B/X 3C 4C
6C6	MOBILE/TRANSPORTABLE COMMUNICATIONS SYSTEMS	2B/- 3C 4C
	<u>TROUBLESHOOT</u>	
7D(1)(A)	LF TRANSMITTERS	2B/X 3C 4C
7D(2)(A)	LF RECEIVERS	2B/X 3C 4C
7D(13)	FACSIMILE	2B/X 3C 4C

that matching process. Information available in that printout includes TE and TD ratings, as well as percent members performing data for first job (1-24 months TAFMS) and first-enlistment (1-48 months TAFMS) personnel.

Of the 688 tasks in the inventory, 629 are not matched to the POI. Some 56 of these unmatched tasks have high TE (greater than 3.63) and 38 have both high TE and more than 30 percent members performing. These 38 tasks are listed in Table 14. These tasks should be reviewed by the training community for inclusion in the formal training course and for possible matching with POI blocks. The need for revision is underlined by the fact that a number of these tasks have above average (greater than 5.0) TD.

A number of POI blocks did not have any tasks matched to them. However, some of the unmatched tasks do seem to be relevant to these unmatched POI blocks. For example, POI Block X-4, Air Force Technical Orders, has no tasks matched to it, yet one of the unmatched tasks with high TE (greater than 3.63) and above average percent members performing (greater than 30 percent) reads, "Research Technical Orders to Identify Components or Items of Equipment." Part of this problem with unmatched POI blocks may be caused by the equipment or performance specificity of these blocks. Subject-matter specialists and training personnel should review the lack of inventory task matches to POI blocks to determine whether applicable tasks were not matched, or no inventory tasks appropriate to those elements exist.

### Electronic Principles (EP)

The Electronic Fundamentals paragraph of the STS (Paragraph 9) and the electronic principles taught in the basic course can be evaluated using data from the Electronic Principles Inventory (EPI). The EPI is a knowledge-based inventory containing 1,366 questions in 63 electronic-related subject areas. It identifies the range of electronic principles personnel must understand to perform any electronics-oriented job.

One hundred eighty-four 5-skill level personnel in the AFSC 304X4 career ladder completed the EPI between December 1982 and July 1983. A comprehensive EPI Report for those AFSCs taught at Keesler AFB was published in April 1984. Based on findings from that report, AFSC 304X4 personnel cover a wide range of electronic principles in performing their job. Table 15 lists those Electronic areas where more than 50 percent or more of the AFSC 304X4 personnel responded "yes" to performing. This data, as well as the complete data package for Keesler AFSCs, can be extremely useful to subject-matter specialists when evaluating those portions of the STS and POI concerning electronic fundamentals or principles.

### JOB SATISFACTION

Job satisfaction data are collected and displayed as a means of determining how career ladder members perceive certain aspects of their AFSC.

TABLE 14

TASKS NOT MATCHED TO POI WITH HIGH TE AND HIGH PERCENT MEMBERS PERFORMING

TASKS	TNG EMP*	PERCENT 1ST ENL PERSONNEL PERFORMING	TASK DIFF**
SOLDER COMMUNICATION EQUIPMENT COMPONENTS	6.75	75	5.05
PERFORM HIGH RELIABILITY SOLDERING OF INTEGRATED CIRCUITS	6.65	35	6.33
BENCH CHECK HF TRANSCEIVERS OR SUBASSEMBLIES	6.53	42	5.86
BENCH CHECK HF POWER AMPLIFIERS OR SUBASSEMBLIES	6.38	39	5.87
BENCH CHECK VHF TRANSCEIVERS	6.37	41	6.08
MAKE ENTRIES ON AF TO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	6.32	70	4.48
MAKE ENTRIES ON AF TO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	6.23	70	4.36
BENCH CHECK HF RECEIVERS	6.23	31	5.65
BENCH CHECK VHF POWER AMPLIFIERS	6.22	30	6.08
REMOVE OR INSTALL VHF EQUIPMENT PARTS	5.77	45	5.05
BENCH CHECK HF EXCITERS	5.67	30	5.97
REMOVE OR INSTALL UHF EQUIPMENT PARTS	5.53	57	5.16
COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUESTS)	5.40	53	3.68
BENCH CHECK POWER SUPPLY EQUIPMENT	5.30	42	5.34
BENCH CHECK AUDIO RECORDER-REPRODUCERS	5.18	30	5.55
VISUALLY INSPECT STATION GROUNDS	5.03	40	3.36
REMOVE OR INSTALL HF EQUIPMENT PARTS	5.00	54	5.00
LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	4.97	65	3.61
ALIGN MULTIPLE CHANNEL TRANSMISSION EQUIPMENT	4.95	35	6.38
REMOVE OR INSTALL POWER SUPPLY EQUIPMENT PARTS	4.73	44	4.81
RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	4.68	57	4.52
RESEARCH TECHNICAL ORDERS TO IDENTIFY COMPONENTS OR ITEMS OF EQUIPMENT			
BENCH CHECK POWER SUPPLY UNITS	4.57	36	4.48
OPERATIONALLY CHECK COMMUNICATION PATCH PANELS	4.55	43	5.05
	4.42	37	3.44

\* Average training emphasis is 2.13, with standard deviation of 1.50

\*\* Task difficulty rating of 5.00 is average

TABLE 14 (CONTINUED)

TASKS NOT MATCHED TO POI WITH HIGH TE AND HIGH PERCENT MEMBERS PERFORMING

TASKS	TNG EMP*	PERCENT 1ST ENL PERSONNEL PERFORMING	TASK DIFF**
BENCH CHECK EQUIPMENT PRIOR TO INITIAL INSTALLATION	4.28	36	5.18
ALIGN INTERNAL CIRCUITRY OF RADIO OR AUXILIARY EQUIPMENT AFTER INITIAL INSTALLATION	4.25	41	5.79
ALIGN ANTENNA COUPLER COMPONENTS	4.25		
REMOVE OR INSTALL MULTIPLE CHANNEL EQUIPMENT PARTS	4.23	39	5.13
ADJUST EXTERNAL CONTROL OF RADIO OR AUXILIARY EQUIPMENT AFTER INITIAL INSTALLATION	4.20	37	4.73
REMOVE OR INSTALL AUDIO RECORDER-REPRODUCER DISCRETE PARTS	4.15	31	5.31
INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	4.12	49	3.27
ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574	4.10	49	3.33
FABRICATE TEST ADAPTERS	4.03	38	5.13
MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	3.90	43	3.00
COORDINATE WITH BASE SUPPLY ON OBTAINABLE PARTS	3.85	43	4.59
MAKE ENTRIES ON AF FORMS 2413 (SUPPLY CONTROL LOG)	3.85	38	3.34
STORE OR SECURE TOOLS, EQUIPMENT OR MATERIALS	3.82	49	2.91
REMOVE OR INSTALL EQUIPMENT POWER SUPPLY UNIT DISCRETE PARTS	3.67	31	4.98

\* Average training emphasis is 2.13, with standard deviation of 1.50

\*\* Task difficulty rating of 5.00 is average

TABLE 15  
ELECTRONIC PRINCIPLES USED BY FIFTY PERCENT  
OR MORE OF AFSC 30454 PERSONNEL

MATHEMATICS	TRANSISTORS
DIRECT CURRENT	TRANSISTOR AMPLIFIERS
RESISTANCE AND RESISTIVE CIRCUITS	SOLID-STATE SPECIAL PURPOSE DEVICES
METERS/MULTIMETERS	POWER SUPPLIES
ALTERNATING CURRENT	OSCILLATORS
INDUCTORS	ELECTRON TUBES
CAPACITORS	ELECTRON TUBE AMPLIFIERS AND CIRCUITS
TRANSFORMERS	TRANSMIT OR RECEIVE SYSTEMS
RCL CIRCUITS	AM SYSTEMS
FILTERS	FM SYSTEMS
COUPLING	SIGNAL GENERATORS
SOLDERING	METERS
RELAYS	SINGLE OR INDEPENDENT SIDE-BAND SYSTEMS
MICROPHONES	ANTENNAS
SPEAKERS	CABLE FABRICATION
OSCILLOSCOPES	
SEMICONDUCTOR DIODES	

TABLE 17

## MAJOR COMMAND JOB SATISFACTION DATA

	AFCC (N=1,377)	ESC (N=291)	TAC (N=265)	ATC (N=99)	USAFE (N=134)
<u>EXPRESSED JOB INTEREST:</u>					
INTERESTING	76	77	71	88	72
SO-SO	14	13	14	8	16
DULL	10	9	15	3	12
<u>PERCEIVED UTILIZATION OF TALENTS:</u>					
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	80 20	80 19	75 25	87 12	81 19
<u>PERCEIVED UTILIZATION OF TRAINING:</u>					
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	72 28	73 27	72 28	86 13	74 26
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT GAINED FROM YOUR JOB:</u>					
SATISFIED	70	70	56	75	52
AMBIVALENT	11	8	17	8	10
DISSATISFIED	19	21	27	17	37
<u>DO YOU PLAN TO REENLIST?</u>					
YES	63	66	50	79	60
NO	32	24	42	10	35
WILL RETIRE	5	8	6	11	2

TABLE 16 (CONTINUED)

JOB SATISFACTION INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES  
(PERCENT MEMBERS RESPONDING)

	ENGINEERING AND INSTALLATION IJT (GRP278)	TECHNICAL TRAINING IJT (GRP236)	MAINTENANCE JOB CONTROL IJT (GRP058)
<u>HOW DO YOU FIND YOUR JOB:</u>			
INTERESTING	86	86	57
SO-SO	9	8	17
DULL	6	5	26
<u>HOW WELL DOES YOUR JOB UTILIZE YOUR TALENTS:</u>			
FAIRLY WELL TO PERFECTLY	71	87	52
VERY LITTLE OR NOT AT ALL	29	12	48
<u>HOW WELL DOES YOUR JOB UTILIZE YOUR TRAINING:</u>			
FAIRLY WELL TO PERFECTLY	43	87	30
VERY LITTLE OR NOT AT ALL	57	12	70
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT GAINED FROM YOUR JOB:</u>			
SATISFIED	86	75	49
AMBIVALENT	9	7	13
DISSATISFIED	6	18	39
<u>DO YOU PLAN TO REENLIST?</u>			
YES	71	78	69
NO	23	9	29
WILL RETIRE	6	13	1

NOTE: Columns may not add to 100 percent due to "no response" or rounding

Among these aspects are perceived job interest, utilization of talents, utilization of training, sense of accomplishment, and reenlistment intent. These data are useful not only as a means of viewing current career ladder perceptions, but also to provide the ability to make comparisons with other data. These other data include comparative information (collected from other Air Force AFSCs which are direct support-related) and job satisfaction statistics collected from the previous occupational survey report (published in 1981).

Table 16 displays job satisfaction data for clusters and independent job types. With the exception of maintenance job controllers, all groups had very positive responses overall. Although maintenance job controllers had comparatively lower positive responses than members from the other specialty jobs, it was the Ground Radio Maintenance cluster that had the lowest reenlistment intent.

MAJCOM data are displayed in Table 17. As this table shows, ATC had the highest responses in all job satisfaction areas including reenlistment intent. Comparatively, TAC responses were lowest in all categories with the exception of "Sense of Accomplishment Gained from Work," where USAFE was lowest with 52 percent of all USAFE responses stating they were satisfied. Those MAJCOMs not listed in this table had less than 1 percent of the total survey sample.

First-enlistment (1-48 TAFMS), second-enlistment (49-96 TAFMS), and career (97+ TAFMS) group data are listed in Table 18. Also in this table are comparative sample data for other mission equipment specialties. This table is useful both in terms of displaying job satisfaction for experience groups in this AFSC, and for showing how this specialty compares to other career fields which were surveyed during the previous fiscal year. Generally, numbers for both current experience groups, and the comparative data are very close, with the only notable difference (more than 10 percentage points variance) being found in the 97+ category in the "Perceived Utilization of Training" area. Training and utilization personnel should find tables associated with this section useful in identifying possible pockets of job dissatisfaction.

#### COMPARISON TO PREVIOUS SURVEY

It is important to compare the current occupational survey to the previous report to see if the career ladder has changed over time, and to determine what those changes are. The previous OSR was published in November 1981. It included 1,618 incumbents and most (as is true with the current report) were assigned to AFCC.

Nearly all specialty jobs identified in the previous report are also found in this current product. A few specialty job or functional area names have changed over time, but as far as job coverage and actual tasks performed in those jobs, very little has changed. There have been some minor changes in equipment utilization over time, and these changes are displayed in Table 19.

TABLE 16

JOB SATISFACTION INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES  
(PERCENT MEMBERS RESPONDING)

	SUPERVISORY CLUSTER (GRP168)	QUALITY CONTROL IJT (GRP555)	SUPPLY PERSONNEL IJT (GRP126)	GROUND RADIO MAINTENANCE CLUSTER (GRP062)
<u>HOW DO YOU FIND YOUR JOB:</u>				
INTERESTING	80	87	79	75
SO-SO	12	6	11	14
DULL	8	5	11	11
<u>HOW WELL DOES YOUR JOB UTILIZE YOUR TALENTS:</u>				
FAIRLY WELL TO PERFECTLY	84	89	64	83
VERY LITTLE OR NOT AT ALL	16	10	36	17
<u>HOW WELL DOES YOUR JOB UTILIZE YOUR TRAINING:</u>				
FAIRLY WELL TO PERFECTLY	78	79	45	81
VERY LITTLE OR NOT AT ALL	22	20	55	19
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT GAINED FROM YOUR JOB:</u>				
SATISFIED	68	75	66	69
AMBIVALENT	11	6	5	11
DISSATISFIED	22	17	29	20
<u>DO YOU PLAN TO REENLIST?</u>				
YES	70	76	73	57
NO	15	9	18	41
WILL RETIRE	15	15	9	1

NOTE: Columns may not add to 100 percent due to "no response" or rounding

TABLE 18  
JOB SATISFACTION INDICES FOR 304X4 EXPERIENCE GROUPS  
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS		49-96 MONTHS		97+ MONTHS	
	304X4 PERS (N=997)	COMP SAMPLE* (N=7,891)	304X4 PERS (N=479)	COMP SAMPLE* (N=3,015)	304X4 PERS (N=517)	COMP SAMPLE* (N=3,789)
EXPRESSED JOB INTEREST:						
INTERESTING	74	72	73	70	75	74
SO-SO	15	17	16	18	13	16
DULL	11	11	11	11	12	9
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL OR BETTER	80	77	76	76	77	80
LITTLE OR NOT AT ALL	20	23	24	23	21	19
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL OR BETTER	74	79	70	77	67	78
LITTLE OR NOT AT ALL	26	21	30	22	33	21
HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT GAINED FROM YOUR JOB:						
SATISFIED	68	70	65	66	67	68
AMBIVALENT	12	13	11	14	5	11
DISSATISFIED	20	16	24	20	24	20
DO YOU PLAN TO REENLIST?						
YES	49	59	71	74	89	76
NO	50	40	27	23	9	8
WILL RETIRE	-	-	-	1	2	15

- Less than .5 percent

\* 1984 Comparative sample taken from Mission Equipment Maintenance Specialties: 321X2/A/C/P/O, 322X2A/C, 328X2, 328X3, 328X4, 40441, 423X0, 423X2, 423X4, 427X5, and 461X0

NOTE: Columns may not add to 100 percent due to "no response" or rounding

TABLE 19  
 RADIO EQUIPMENT MAINTAINED BY 1-48 TAFMS MEMBERS  
 (Current vs Previous OSRs)

<u>RADIO EQUIPMENT</u>	<u>PERCENT MAINTAINING</u>		
	<u>1976</u>	<u>1981</u>	<u>1986</u>
AN/GRC-171	2	50	48
AN/GRR-24	39	47	45
AN/GRT-22	40	47	44
AN/GRT-21	21	37	32
AN/GRC-175	23	36	24
KWM-2	30	35	40
AN/GRR-23	15	30	34
R-2174	*	10	13

\* Indicates no data collected or item not utilized in 1976

TABLE 20

A COMPARISON OF JOB SATISFACTION DATA FOR VARIOUS ENLISTMENT  
GROUPS IN THE 1986 AND 1981 OSRs  
(PERCENT MEMBERS RESPONDING)

	FIRST-TERM (1-48 MOS TAFMS)		SECOND-TERM (49-96 MOS TAFMS)		CAREER (97+ MOS TAFMS)	
	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>
FINDS JOB INTERESTING	74	74	73	65	76	70
UTILIZES TALENTS WELL	80	78	76	76	79	77
UTILIZES TRAINING WELL	74	76	70	75	69	72
INTENDS TO REENLIST	49	36	71	49	74	62

This table shows data from the previous study (1981), as well as the 1976 OSR, and compares radio equipment usage data for first-term airmen to data for the same group in the current report. As this equipment table clearly displays, some minor changes have occurred over time. With the exception of the KWM-2 and the AN/GRR-23, all percent members maintaining figures have gone down. There is one example given (the AN/GRC-175) which has fallen below the prescribed 30 percent members performing level required to justify training. This table simply displays examples, but the full range of radio equipment maintained can be found in the Training Extract which will be supplied to utilization and training personnel, as well as other interested users.

Another area of interest in this comparison involves job satisfaction. Table 20 provides job satisfaction figures for both the previous and the current OSR. This helps display how career ladder perceptions change over time. As the table shows, previous and current indicators remain fairly close, with the exception of reenlistment intent. Here, figures have increased significantly (13 to 22 percent).

#### IMPLICATIONS

Many areas have been reviewed in this report. Some of these include career ladder progression, job satisfaction, CONUS/Overseas differences, and specialty descriptions.

The Specialty Training Standard (STS) was analyzed against a task matching provided by subject-matter experts at the Keesler AFB Technical Training Center. Based on the results of this matching, the STS was analyzed for its ability to support career ladder on-the-job training. Using both percent members performing information and task factor data, each paragraph of the STS was reviewed. This review revealed 3 paragraphs and 1 subparagraph of the document which were not supported by at least 20 percent or more career ladder members performing. Further, there were two additional paragraphs which had both low percent members performing and low task factor indicators (Training Emphasis (TE) ratings below the mean). Additionally, there were 190 tasks not matched to any paragraphs of the STS, though most did not seem to warrant inclusion based on their percent members performing figures.

The in-residence course Plan of Instruction (POI) was analyzed in much the same way as the STS, though with slightly different criteria. A similar task matching was performed by technical training personnel, and an analysis of matched and unmatched tasks was conducted. There are a total of 688 inventory tasks. Of these 688 tasks, 629 were not matched to the POI. Fifty-six of these unmatched tasks had high TE ratings, and 38 had both high TE and greater than 30 percent members performing (the criteria for POI task inclusion). There were also a number of POI blocks which were not supported by matched tasks as indicated by their associated data.

A careful review of career ladder training documents seems warranted. Specific guidelines are available in ATRC 52-22 and AFR 8-13. This report and

associated extracts are important and extremely useful documents which should be utilized in the review of the STS and POI.

The current AFR 39-1 Specialty Descriptions for this AFSC were analyzed against findings outlined in this report. This analysis indicates that current AFR 39-1 narratives are descriptive of Ground Radio Communications Specialists at the various skill levels. Likewise, survey data were used to determine utilization patterns for career ladder members. These patterns were found to be normal, with 3-skill level members performing mostly technical tasks while 7-skill level NCOs are found mostly in supervisory/managerial positions. Sixty percent of all AFSC 304X4 members were stationed in the CONUS, which indicates a good CONUS/Overseas balance where a member is likely to be stationed in the continental United States.

APPENDIX A

REPRESENTATIVE TASKS PERFORMED BY  
SPECIALTY JOB GROUPS

TABLE A1

GROUP ID NUMBER AND TITLE: SUPERVISORY CLUSTER (GRP168)  
 GROUP SIZE: 481 PERCENT OF SAMPLE: 20%  
 AVERAGE GRADE: E-6 AVERAGE TICF: 138 MONTHS  
 AVERAGE TAFMS: 154 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEF- INGS, CONFERENCES, OR WORKSHOPS	93
C131 WRITE APR	92
A11 DETERMINE WORK PRIORITIES	91
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAINING RECORD)	91
B54 COUNSEL SUBORDINATES ON PERSONAL OR MILITARY-RELATED MATTERS	91
B53 COUNSEL SUBORDINATES ON JOB PROGRESSION OR CAREER DEVEL- OPMENT	89
B81 ORIENT NEWLY ASSIGNED PERSONNEL	88
A8 COORDINATE WORK ACTIVITIES WITH OTHER ACTIVITIES OR AGENCIES	88
C119 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	88
D167 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	84
A48 SCHEDULE WORK ASSIGNMENTS AND PRIORITIES	84
B91 WRITE CORRESPONDENCE	82
B79 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBOR- DINATES	79
A24 ESTABLISH WORK SCHEDULES	79
A46 SCHEDULES LEAVES, PASSES, OR TDY	79
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	77
B88 SUPERVISE GROUND RADIO COMMUNICATIONS SPECIALISTS (AFSC 30454)	76
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	76
C127 REVIEW PREVENTIVE MAINTENANCE SCHEDULES	76
D141 CONDUCT OJT	76
A37 PLAN WORK ASSIGNMENTS	75
C128 REVIEW SUPPLY DAILY DOCUMENT REGISTERS	75
D147 COUNSEL TRAINEES ON TRAINING PROGRESS	75
F272 REVIEW SUPPLY DAILY DOCUMENT REGISTERS (D04/804-11)	73
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	73
A7 COORDINATE WITH MAINTENANCE CONTROL ON MAINTENANCE PROBLEMS	73
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	73

TABLE A2

GROUP ID NUMBER AND TITLE: EQUIPMENT NCOICs (GRP681)  
 GROUP SIZE: 173 PERCENT OF SAMPLE: 7.2%  
 AVERAGE GRADE: E-5 AVERAGE TICF: 120 MONTHS  
 AVERAGE TAFMS: 132 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAINING RECORD)	98
A11 DETERMINE WORK PRIORITIES	98
B54 COUNSEL SUBORDINATES ON PERSONAL OR MILITARY-RELATED MATTERS	97
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	96
B53 COUNSEL SUBORDINATES ON JOB PROGRESSION OR CAREER DEVELOPMENT	96
C131 WRITE APR	95
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	95
A48 SCHEDULE WORK ASSIGNMENTS AND PRIORITIES	95
D167 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	95
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	94
D141 CONDUCT OJT	94
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	94
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	94
F228 CERTIFY STATUS OF REPARABLE, SERVICEABLE, OR CONDEMNED PARTS	93
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	93
B81 ORIENT NEWLY ASSIGNED PERSONNEL	93
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	92
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	92
B88 SUPERVISE GROUND RADIO COMMUNICATIONS SPECIALISTS (AFSC 30454)	92
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	92
C119 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	91
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	91
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICATIONS EQUIPMENT (GRCE)	91
C127 REVIEW PREVENTIVE MAINTENANCE SCHEDULES	90
F272 REVIEW SUPPLY DAILY DOCUMENT REGISTERS (D04/804-11)	89
A37 PLAN WORK ASSIGNMENTS	88
C125 REVIEW MAINTENANCE DATA COLLECTION FORMS	88

TABLE A3

GROUP ID NUMBER AND TITLE: GROUND RADIO MAINTENANCE NCOICs (GRP672)  
 GROUP SIZE: 129 PERCENT OF SAMPLE: 5.4%  
 AVERAGE GRADE: E-6 AVERAGE TICF: 151 MONTHS  
 AVERAGE TAFMS: 174 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEF- INGS, CONFERENCES, OR WORKSHOPS	98
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAINING RECORD)	98
B53 COUNSEL SUBORDINATES ON JOB PROGRESSION OR CAREER DEVEL- OPMENT	98
C131 WRITE APR	98
B54 COUNSEL SUBORDINATES ON PERSONAL OR MILITARY-RELATED MATTERS	98
B81 ORIENT NEWLY ASSIGNED PERSONNEL	98
C119 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	97
A11 DETERMINE WORK PRIORITIES	96
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	96
A46 SCHEDULE LEAVES, PASSES, OR TDY	96
B91 WRITE CORRESPONDENCE	94
C128 REVIEW SUPPLY DAILY DOCUMENT REGISTERS	94
C127 REVIEW PREVENTIVE MAINTENANCE SCHEDULES	94
A48 SCHEDULE WORK ASSIGNMENTS AND PRIORITIES	93
B79 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBOR- DINATES	92
F272 REVIEW SUPPLY DAILY DOCUMENT REGISTERS (D04/804-11)	92
A37 PLAN WORK ASSIGNMENTS	91
A24 ESTABLISH WORK SCHEDULES	91
F271 REVIEW PRIORITY MONITOR REPORTS (D18/820-50)	90
D167 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	89
A7 COORDINATE WITH MAINTENANCE CONTROL ON MAINTENANCE PROBLEMS	89
E202 MAKE ENTRIES ON AF FORMS 2419 (ROUTING AND REVIEW OF QUALITY CONTROL REPORTS)	89
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	89
A2 ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	89
D149 DETERMINE OJT TRAINING REQUIREMENTS	88
A22 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	88
C118 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	88
D174 SCHEDULE PERSONNEL FOR TRAINING	88
D147 COUNSEL TRAINEES ON TRAINING PROGRESS	87
D139 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS OR SUPERVISORS	87

TABLE A4

GROUP ID NUMBER AND TITLE: QUALITY CONTROL INDEPENDENT JOB TYPE (GRP555)  
 GROUP SIZE: 79 PERCENT OF SAMPLE: 20%  
 AVERAGE GRADE: E-6 AVERAGE TICF: 138 MONTHS  
 AVERAGE TAFMS: 154 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
C93 CONDUCT INSPECTIONS	100
E202 MAKE ENTRIES ON AF FORMS 2419 (ROUTING AND REVIEW OF QUALITY CONTROL REPORTS)	99
E203 MAKE ENTRIES ON AF FORMS 2420 (QUALITY CONTROL INSPECTION (SUMMARY))	97
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	95
C124 REVIEW INSPECTION REPORTS	94
C110 EVALUATE QUALITY CONTROL/ASSURANCE PROCEDURES	90
C116 EVALUATE UNSATISFACTORY REPORTS OR MATERIEL DEFICIENCY REPORTS	87
C126 REVIEW MAINTENANCE OR INSPECTION REPORTS	86
C114 EVALUATE TECHNICAL ORDER IMPROVEMENT REPORTS	86
C99 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	84
B73 IMPLEMENT QUALITY CONTROL STANDARDS	84
C102 EVALUATE INSPECTION REPORTS OR PROCEDURES	84
B91 WRITE CORRESPONDENCE	82
A28 PLAN OR SCHEDULE MAINTENANCE OR INSPECTIONS OF GROUND RADIO SYSTEMS	82
A20 ESTABLISH INSPECTION PROCEDURES	81
E182 COMPLETE MATERIEL DEFICIENCY REPORTS	77
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	73
A45 REVIEW DRAFTS OF REGULATIONS, MANUALS, OR OTHER DIRECTIVES	71
B50 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	70
E201 MAKE ENTRIES ON AF FORMS 2415 (QUALITY CONTROL CHECKSHEET)	70
A38 PLAN WORK CENTER INSPECTIONS OF FACILITIES OR EQUIPMENT	68
C129 REVIEW, EDIT, OR COORDINATE ON OFFICIAL CORRESPONDENCE OR MESSAGES	67
A21 ESTABLISH ORGANIZATIONAL POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	67
B59 DIRECT EVALUATION OF PERSONNEL	65
E212 MAKE ENTRIES ON AFTO FORMS 114 (MATERIEL DEFICIENCY EXHIBIT)	65
A27 PLAN OR PREPARE BRIEFINGS	65
E211 MAKE ENTRIES ON AFTO FORMS 110 (TECHNICAL ORDER DISTRIBUTION RECORD)	63
C96 EVALUATE ADMINISTRATIVE FORMS, FILES, OR PROCEDURES	63

TABLE A5

GROUP ID NUMBER AND TITLE: SUPPLY CLUSTER INDEPENDENT JOB TYPE (GRP126)  
 GROUP SIZE: 56 PERCENT OF SAMPLE: 2%  
 AVERAGE GRADE: E-5 AVERAGE TICF: 129 MONTHS  
 AVERAGE TAFMS: 138 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEF- INGS, CONFERENCES, OR WORKSHOPS	89
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	84
B91 WRITE CORRESPONDENCE	82
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	82
F272 REVIEW SUPPLY DAILY DOCUMENT REGISTERS (D04/804-11)	82
F273 REVIEW SUPPLY OR EQUIPMENT REQUIREMENTS WITH ALLOWANCE AND AUTHORIZATION (A&A) OFFICE	80
F258 MAKE ENTRIES ON AF FORMS 601 (EQUIPMENT ACTION REQUEST)	79
F230 COMPLETE DD FORMS 1348-6 (NON-NSN REQUISITION (MANUAL))	73
F232 COORDINATE WITH BASE SUPPLY ON OBTAINING PARTS	71
F265 PREPARE LETTERS OF JUSTIFICATION FOR SUPPLY-RELATED MATTERS	71
F271 REVIEW PRIORITY MONITOR REPORTS (D18/820-50)	71
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	71
F252 MAINTAIN PROPERTY CUSTODIAN AUTHORIZATION/CUSTODY RECEIPT LISTINGS (CA/CRL)	66
C128 REVIEW SUPPLY DAILY DOCUMENT REGISTERS	66
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	64
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	63
F237 EVALUATE EQUIPMENT ALLOWANCE OR AUTHORIZATION CHANGES	61
F259 MAKE ENTRIES ON AF FORMS 9 (REQUEST FOR PURCHASE)	61
F269 REVIEW AF FORMS 126 (CUSTODIAN REQUEST LOG)	61
F255 MAKE ENTRIES ON AF FORMS 2413 (SUPPLY CONTROL LOG)	54
A17 DRAFT BUDGET OR FINANCIAL REQUIREMENTS	54
F267 PREPARE REQUISITIONS FOR LOCAL PURCHASE OF SUPPLY ITEMS	54
F261 MAKE ENTRIES ON DD FORMS 1348-1 (DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT)	54
C129 REVIEW, EDIT, OR COORDINATE ON OFFICIAL CORRESPONDENCE OR MESSAGES	52
A27 PLAN OR PREPARE BRIEFINGS	52
A11 DETERMINE WORK PRIORITIES	52
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	52
C93 CONDUCT INSPECTIONS	50
E185 MAINTAIN CORRESPONDENCE FILES	50

TABLE A6

GROUP ID NUMBER AND TITLE: GROUND RADIO MAINTENANCE PERSONNEL CLUSTER (GRP062)  
 GROUP SIZE: 1,174 PERCENT OF SAMPLE: 49%  
 AVERAGE GRADE: E-4 AVERAGE TICF: 46 MONTHS  
 AVERAGE TAFMS: 53 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	89
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	83
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	81
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICATIONS EQUIPMENT (GRCE)	78
H383 OPERATIONALLY CHECK HF EQUIPMENT	76
H380 LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	76
H392 OPERATIONALLY CHECK UHF EQUIPMENT	74
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	74
J491 ALIGN HIGH FREQUENCY (HF) EQUIPMENT	72
H378 ISOLATE MALFUNCTIONS WITHIN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	71
J499 ALIGN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	71
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	67
J541 REMOVE OR INSTALL UHF EQUIPMENT PARTS	67
F262 PAINT FACILITIES OR EQUIPMENT	66
J534 REMOVE OR INSTALL HF EQUIPMENT PARTS	66
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	65
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	61
J524 BENCH CHECK UHF TRANSCEIVERS	59
H393 OPERATIONALLY CHECK VHF EQUIPMENT	58
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	58
H379 ISOLATE MALFUNCTIONS WITHIN VERY HIGH FREQUENCY (VHF) EQUIPMENT	57
H375 ISOLATE MALFUNCTIONS WITHIN MULTIPLE CHANNEL EQUIPMENT	55
J500 ALIGN VERY HIGH FREQUENCY (VHF) EQUIPMENT	55
J542 REMOVE OR INSTALL VHF EQUIPMENT PARTS	54
H377 ISOLATE MALFUNCTIONS WITHIN SIDE BAND EQUIPMENT	53
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	53
J518 BENCH CHECK POWER SUPPLY EQUIPMENT	53
J537 REMOVE OR INSTALL POWER SUPPLY EQUIPMENT PARTS	52
J523 BENCH CHECK UHF RECEIVERS	52
K579 BENCH CHECK POWER SUPPLY UNITS	52
J497 ALIGN SIDE BAND EQUIPMENT	51

TABLE A7

GROUP ID NUMBER AND TITLE: SHOP MAINTENANCE REPAIRMEN (GRP382)  
 GROUP SIZE: 283 PERCENT OF SAMPLE: 12%  
 AVERAGE GRADE: E-4 AVERAGE TICF: 44 MONTHS  
 AVERAGE TAFMS: 50 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	94
H383 OPERATIONALLY CHECK HF EQUIPMENT	93
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	91
J491 ALIGN HIGH FREQUENCY (HF) EQUIPMENT	90
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	88
H392 OPERATIONALLY CHECK UHF EQUIPMENT	88
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICATIONS EQUIPMENT (GRCE)	86
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	86
M621 INSTALL MOBILE ANTENNA SYSTEMS	86
H378 ISOLATE MALFUNCTIONS WITHIN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	84
J534 REMOVE OR INSTALL HF EQUIPMENT PARTS	84
J499 ALIGN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	84
M630 OPERATIONALLY CHECK MOBILE ANTENNA SYSTEMS	83
H380 LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	80
J541 REMOVE OR INSTALL UHF EQUIPMENT PARTS	80
F262 PAINT FACILITIES OR EQUIPMENT	78
M620 FIRE WEAPONS FOR PROFICIENCY	78
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	78
J506 BENCH CHECK HF TRANSCEIVERS OR SUBASSEMBLIES	78
J524 BENCH CHECK UHF TRANSCEIVERS	77
H377 ISOLATE MALFUNCTIONS WITHIN SIDE BAND EQUIPMENT	77
M632 PERFORM OPERATOR MAINTENANCE ON MOBILE EQUIPMENT	76
I408 ADJUST ANTENNA SYSTEM GUY WIRES OR ELEMENTS	76
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	75
J497 ALIGN SIDE BAND EQUIPMENT	75
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	75
H391 OPERATIONALLY CHECK SIDE BAND EQUIPMENT	75
M627 LAY ELECTRICAL OR COMMUNICATIONS CABLES	75
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	74
M622 INSTALL STATION GROUNDS ON VANS OR SHELTERS	74
M617 ADJUST MOBILE ANTENNA SYSTEMS	73
H393 OPERATIONALLY CHECK VHF EQUIPMENT	72

TABLE A8

GROUP ID NUMBER AND TITLE: AIR TRAFFIC CONTROL (ATC) COMMUNICATIONS  
REPAIR (GRP330)

GROUP SIZE: 363

PERCENT OF SAMPLE: 15%

AVERAGE GRADE: E-4

AVERAGE TICF: 36 MONTHS

AVERAGE TAFHS: 45 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
J499 ALIGN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	97
J523 BENCH CHECK UHF RECEIVERS	97
H392 OPERATIONALLY CHECK UHF EQUIPMENT	96
H379 ISOLATE MALFUNCTIONS WITHIN VERY HIGH FREQUENCY (VHF) EQUIPMENT	96
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	95
H393 OPERATIONALLY CHECK VHF EQUIPMENT	94
J500 ALIGN VERY HIGH FREQUENCY (VHF) EQUIPMENT	94
H378 ISOLATE MALFUNCTIONS WITHIN ULTRA HIGH FREQUENCY (UHF) EQUIPMENT	94
J527 BENCH CHECK VHF RECEIVERS	94
J541 REMOVE OR INSTALL UHF EQUIPMENT PARTS	93
J525 BENCH CHECK UHF TRANSMITTERS	92
J542 REMOVE OR INSTALL VERY HIGH FREQUENCY (VHF) EQUIPMENT PARTS	92
J529 BENCH CHECK VHF TRANSMITTERS	90
J524 BENCH CHECK UHF TRANSCEIVERS	88
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLEC- TION RECORD)	87
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICA- TIONS EQUIPMENT (GRCE)	85
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	84
J528 BENCH CHECK VHF TRANSCEIVERS	84
H380 LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	84
J522 BENCH CHECK UHF POWER AMPLIFIERS	80
K546 ALIGN AUDIO RECORDER-REPRODUCER DISCRETE PARTS	75
J516 BENCH CHECK MULTIPLE CHANNEL TRANSCEIVERS	75
J526 BENCH CHECK VHF POWER AMPLIFIERS	72
H375 ISOLATE MALFUNCTIONS WITHIN MULTIPLE CHANNEL EQUIPMENT	71
H383 OPERATIONALLY CHECK HF EQUIPMENT	67
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	67
H386 OPERATIONALLY CHECK MULTIPLE CHANNEL EQUIPMENT	66
F262 PAINT FACILITIES OR EQUIPMENT	65
I466 PERFORM OPERATIONAL CHECKS OF AUDIO RECORDERS AND REPRO- DUCERS	65
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	65

TABLE A9

GROUP ID NUMBER AND TITLE: INSTALLED EQUIPMENT MAINTENANCE REPAIRMEN  
(GRP244)

GROUP SIZE: 64

PERCENT OF SAMPLE: 3%

AVERAGE GRADE: E-4

AVERAGE TICF: 57 MONTHS

AVERAGE TAFMS: 63 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
J543 SOLDER COMMUNICATIONS EQUIPMENT COMPONENTS	97
H383 OPERATIONALLY CHECK HF EQUIPMENT	95
H373 ISOLATE MALFUNCTIONS WITHIN HIGH FREQUENCY (HF) EQUIPMENT	94
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	94
J491 ALIGN HIGH FREQUENCY (HF) EQUIPMENT	91
H380 LUBRICATE MECHANICAL PARTS OF GROUND RADIO EQUIPMENT	91
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	89
F268 RESEARCH MICROFICHE FILES FOR SUPPLY REQUISITION DATA	84
J531 PERFORM CORROSION PREVENTION ON GROUND RADIO COMMUNICATIONS EQUIPMENT (GRCE)	84
J497 ALIGN SIDE BAND EQUIPMENT	81
J534 REMOVE OR INSTALL HF EQUIPMENT PARTS	80
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	80
F232 COORDINATE WITH BASE SUPPLY ON OBTAINING PARTS	80
F262 PAINT FACILITIES OR EQUIPMENT	80
H377 ISOLATE MALFUNCTIONS WITHIN SIDE BAND EQUIPMENT	78
J518 BENCH CHECK POWER SUPPLY EQUIPMENT	78
F229 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	78
H391 OPERATIONALLY CHECK SIDE BAND EQUIPMENT	77
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	77
J537 REMOVE OR INSTALL POWER SUPPLY EQUIPMENT PARTS	75
K579 BENCH CHECK POWER SUPPLY UNITS	75
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	75
F227 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	75
F255 MAKE ENTRIES ON AF FORMS 2413 (SUPPLY CONTROL LOG)	73
H396 REMOVE OR INSTALL HF SYSTEM LRU	72
I452 OPERATIONALLY CHECK COMMUNICATIONS PATCH PANELS	72
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	70
J505 BENCH CHECK HF RECEIVERS	69
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAINING RECORD)	69

TABLE A10

GROUP ID NUMBER AND TITLE: E&I TEAM INDEPENDENT JOB TYPE (GRP278)  
 GROUP SIZE: 35 PERCENT OF SAMPLE: 2%  
 AVERAGE GRADE: E-4 AVERAGE TICF: 65 MONTHS  
 AVERAGE TAFMS: 74 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
G277 ASSEMBLE OR WIRE EQUIPMENT COMPONENTS FOR INSTALLATION	94
G308 INSTALL MULTIPLE CHANNEL UHF RECEIVERS	94
G309 INSTALL MULTIPLE CHANNEL UHF TRANSCEIVERS	89
G310 INSTALL MULTIPLE CHANNEL UHF TRANSMITTERS	89
G350 INSTALL UHF RECEIVERS	89
G282 INSTALL COMMUNICATIONS PATCH PANELS	89
G351 INSTALL UHF TRANSCEIVERS	86
G352 INSTALL UHF TRANSMITTERS	86
G311 INSTALL MULTIPLE CHANNEL ULTRA HIGH FREQUENCY (UHF) EXCITERS	80
G298 INSTALL MULTIPLE CHANNEL HF AMPLIFIERS	80
G314 INSTALL MULTIPLE CHANNEL VHF RECEIVERS	77
G292 INSTALL MICROPHONES OR MICROPHONE JACKS	77
G362 VISUALLY INSPECT ASSEMBLED EQUIPMENT OR COMPONENTS PRIOR TO INSTALLATION	74
G315 INSTALL MULTIPLE CHANNEL VHF TRANSCEIVERS	74
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	74
G355 INSTALL VHF RECEIVERS	74
G275 ADJUST EXTERNAL CONTROL OF RADIO OR AUXILIARY EQUIPMENT AFTER INITIAL INSTALLATION	74
G300 INSTALL MULTIPLE CHANNEL HF TRANSCEIVERS	74
G286 INSTALL FIXED REMOTE CONTROL UNITS	74
G297 INSTALL MULTIPLE CHANNEL HF EXCITERS	74
G307 INSTALL MULTIPLE CHANNEL UHF POWER AMPLIFIERS	71
G356 INSTALL VHF TRANSCEIVERS	69
G353 INSTALL VHF EXCITERS	69
G312 INSTALL MULTIPLE CHANNEL VERY HIGH FREQUENCY (VHF) EXCITERS	69
G357 INSTALL VHF TRANSMITTERS	69
G316 INSTALL MULTIPLE CHANNEL VHF TRANSMITTERS	69
G348 INSTALL UHF LINEAR POWER AMPLIFIERS	69
G299 INSTALL MULTIPLE CHANNEL HF RECEIVERS	69
G354 INSTALL VHF POWER AMPLIFIERS	66
G313 INSTALL MULTIPLE CHANNEL VHF POWER AMPLIFIERS	66
G276 ALIGN INTERNAL CIRCUITRY OF RADIO OR AUXILIARY EQUIPMENT AFTER INITIAL INSTALLATION	66
G346 INSTALL UHF EXCITERS	66

TABLE A11

GROUP ID NUMBER AND TITLE: TECHNICAL TRAINING INDEPENDENT JOB TYPE  
(GRP236)

GROUP SIZE: 85

PERCENT OF SAMPLE: 4%

AVERAGE GRADE: E-6

AVERAGE TICF: 120 MONTHS

AVERAGE TAFMS: 131 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
D171 PREPARE LESSON PLANS	96
D176 SCORE TESTS	95
D137 ADMINISTER TESTS	93
D142 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	89
D168 OPERATE AUDIOVISUAL EQUIPMENT	88
D179 WRITE TEST QUESTIONS	88
D178 WRITE OR REVISE TRAINING MATERIALS	81
D147 COUNSEL TRAINEES ON TRAINING PROGRESS	81
D152 DEVELOP PERFORMANCE TESTS	79
D136 ADMINISTER STUDENT CRITIQUES	73
C119 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	69
D154 DEVELOP TRAINING AIDS	66
D165 INSPECT TRAINING AIDS FOR OPERATION OR SUITABILITY	59
F242 INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	55
D164 EVALUATE TRAINING PROGRESS OF RESIDENT COURSE STUDENTS	55
D143 CONDUCT SAFETY TRAINING	52
D162 EVALUATE TRAINING MATERIALS OR AIDS	49
D145 CONDUCT SPECIAL EQUIPMENT TRAINING	48
F262 PAINT FACILITIES OR EQUIPMENT	47
F243 INVENTORY GROUND RADIO COMMUNICATIONS EQUIPMENT	44
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEF- INGS, CONFERENCES, OR WORKSHOPS	44
D167 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	35
D163 EVALUATE TRAINING METHODS OR TECHNIQUES	35
D173 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	35
D151 DEVELOP NEW EQUIPMENT TRAINING PROGRAMS	33
B54 COUNSEL SUBORDINATES ON PERSONAL OR MILITARY-RELATED MATTERS	29
D138 ADVISE UNIT STAFF PERSONNEL ON TRAINING MATTERS	28
E214 MAKE ENTRIES ON AFTO FORMS 244 AND 245 (SYSTEM/EQUIPMENT STATUS RECORD)	27
L616 STORE OR SECURE TOOLS, EQUIPMENT, OR MATERIALS	26
E217 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	26
D153 DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	25

TABLE A12

GROUP ID NUMBER AND TITLE: MAINTENANCE JOB CONTROLLER (GRP058)  
 GROUP SIZE: 104 PERCENT OF SAMPLE: 4%  
 AVERAGE GRADE: E-5 AVERAGE TICF: 77 MONTHS  
 AVERAGE TAFMS: 87 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
A8 COORDINATE WORK ACTIVITIES WITH OTHER SECTIONS OR AGENCIES	84
A25 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEF- INGS, CONFERENCES, OR WORKSHOPS	70
A11 DETERMINE WORK PRIORITIES	63
A27 PLAN OR PREPARE BRIEFINGS	57
C127 REVIEW PREVENTIVE MAINTENANCE SCHEDULES	49
E191 MAINTAIN PREVENTIVE MAINTENANCE INSPECTION (PMI) LISTINGS	48
A7 COORDINATE WITH MAINTENANCE CONTROL ON MAINTENANCE PROBLEMS	42
E189 MAINTAIN MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEM (MMICS) WORKCENTER LISTINGS	39
C125 REVIEW MAINTENANCE DATA COLLECTION FORMS	37
B58 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	36
B51 CONDUCT BRIEFINGS	36
E209 MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB TRAIN- ING RECORD)	32
D141 CONDUCT OJT	31
B70 IMPLEMENT EMERGENCY ACTION PROCEDURES OR PROGRAMS	27
E193 MAINTAIN SECURITY FORMS ON SAFES, RECORDS, OR ROOMS	27
F253 MAKE ENTRIES ON AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	27
F232 COORDINATE WITH BASE SUPPLY ON OBTAINING PARTS	26
B49 ADJUST DAILY MAINTENANCE PLANS TO MEET OPERATIONAL COM- MITMENTS	25
A48 SCHEDULE WORK ASSIGNMENTS AND PRIORITIES	24
B91 WRITE CORRESPONDENCE	24
A28 PLAN OR SCHEDULE MAINTENANCE OR INSPECTIONS OF GROUND RADIO SYSTEMS	23
B72 IMPLEMENT PREVENTIVE MAINTENANCE SCHEDULES	22
C131 WRITE APR	22
C119 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	21
E188 MAINTAIN FILES OF CLASSIFIED MATERIAL OR MESSAGES	20
E192 MAINTAIN PUBLICATION LIBRARIES	20
E216 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLEC- TION RECORD)	20
B90 SUPERVISE MILITARY PERSONNEL WITH AFS OTHER THAN 304X4	19
A47 SCHEDULE USE OF EQUIPMENT OR VEHICLES	18

END

12-86

DTIC